DOCUMENT RESUME

ED 135 195 EC 093 171

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TITLE Special Study Institute for Teachers of Deaf-Blind Multihandicapped Children.
INSTITUTION California State Dept. of Education, Sacramento.; Southwestern Region Deaf-Blind Center, Sacramento, Calif.
SPONS AGENCY Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C. Centers and Services for Deaf-Blind Children.
PUB DATE 76
NOTE 57p.; Proceedings (San Diego, California, August 25-28, 1974)

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS Cognitive Development; Curriculum; *Deaf Blind; Educational Programs; *Educational Resources; Elementary Secondary Education; Exceptional Child Services; *Inservice Teacher Education; Institutes (Training Programs); Multiply Handicapped; Parent Role; Perceptual Motor Learning; Preschool Education; *Program Descriptions; *Regional Programs; Severely Handicapped; *Workshops

ABSTRACT

Presented are the proceedings of the 1974 Special Study Institute for Teachers of Deaf-Blind Multihandicapped Children designed to give teachers an overview of current activities in the southwestern region of the United States. Presentations are divided into four sections--planning, services to parents and professionals, services to deaf-blind children, and resources. Included are papers with the following titles: "The Deaf-Blind Category in the California Master Plan for Special Education" (C. Sevick), "Curriculum Improvement Committee" (J. Gillis), "Programs for the Deaf-Blind in 1980" (E. Lowell), "Leadership Training Program" (R. Jones), "Summer Workshop" (E. Lowell), "Parents' Summer Workshop" (E. Greenleaf), "Project Spin-Off" (J. Miller), "John Tracy Clinic Fullerton Program" (J. Cecchini), "Summer Camp for Deaf-Blind Persons" (S. Hansen), "Vocational Training Program at the California School for the Blind" (C. Zemalis), "Extended School and Hospital Programs" (J. Fields), "Preschool Correspondence Course" (C. Brisco), "Handbook for Residential Personnel--Services to Deaf-Blind Children" (C. Rouin), "Information and Resource Packet" (M. Dryden), "Project Search" (V. McDonald), "Educational Assessment of Deaf-Blind Children" (L. Jenkins), and "Relevance of Sensory Motor Activities and Perceptual Training in Intellectual Development" (C. Groves). (SBH)

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Proceedings
Special Study Institute
for
Teachers of Deaf-Blind Multihandicapped Children

August 25-28, 1974
San Diego, California

EC093171

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Prepared under the sponsorship of the Southwestern Region Deaf-Blind Center, California State Department of Education and the Bureau of Education for the Handicapped, U.S. Office of Education, Department of Health, Education, and Welfare

This publication, which was funded under the provisions of Public Law 91-230, Title VI-EHA, Part C, Section 622, was published by the California State Department of Education, 721 Capitol Mall, Sacramento, California 95814. The activity which is the subject of this publication was supported in whole or in part by the U.S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

Printed by the Office of State Printing
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1976

ADDENDUM

On Page 37, Mrs. Marilyn Dryden discusses "an information and resource packet that was geared for parents, teachers. aides, and administrators of multihandicapped deaf-blind children."

The packet she refers to was neither funded by the Southwestern Region Deaf-Blind Center nor an activity with which the Southwestern Region Deaf-Blind Center and its personnel were involved.

Requests for the packet and for information on the packet should be made to the author as indicated in the article or to Dr. Winnie Bachmann, State Consultant for the Multihandicapped, Office of Special Education, 721 Capitol Mall, Sacramento, California 95814

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Introduction

William A. Blea
Project Director
Southwestern Region Deaf-Blind Center

The theme of the 1974 Special Study Institute for Teachers of Deaf-Blind Multihandicapped Children was "The Scene Is Changing--Are You With It?" The purpose of the institute was to give teachers an overview of current activities in the southwestern region. As so often happens, during the elapsed time between the presentation of papers at the conference and their appearance in published form, the scene has changed. In the brief introduction to each presentation, I will try to update you on any changes.

The program was divided into four sections: planning, services to parents and professionals, services to deaf-blind children, and resources.

The first section, on the subject of planning, begins with a paper by Cherrie Sevick, a member of the California Commission on Special Education. On the very day she was presenting her paper at the Special Study Institute in San Diego, Assembly Bill 4040, the Right to Education Bill, went to the Senate floor where it was passed, thus providing California with a Master Plan for Special Education that will include programs for deaf-blind multihandicapped children.

Joyce Gillis, teacher and member of the Southwestern Region Deaf-Blind Curriculum Improvement Committee, describes the formation of a committee that is attempting to define a curriculum for the deaf-blind in the southwestern region. Despite the vicissitudes of time and geographic barriers, this committee is still working toward the development of this much-needed curriculum.

Edgar Lowell, Director of the John Tracy Clinic, discusses the need for future planning to ensure efficient and effective programs to serve the needs of the deaf-blind population as it matures. As he says, we all are concerned "primarily with the delivery of service...and it's very rare that we have the luxury of time to raise our heads up out of the rut we may be digging and look around and say, hey, what is going on here and what is going to go on in the future?"

In the second section Ray Jones, Director of the Center on Deafness, University of California, Northridge, reviews the growth of the National Leadership Training Program and its expansion into the field of the deaf-blind. This program has continued to grow, and graduates are working in various administrative capacities in the field.

Two summer workshops have been offered, one for parents and one for teachers. Dr. Lowell describes the summer workshops offered for teachers of the deaf-blind at the John Tracy Clinic through the University of Southern California. Evelyn Greenleaf, principal of the Helen Keller unit at the California School for the Blind, Berkeley, explains services offered to parents of deaf-blind children at the close of each school year.

Project Spin-Off was a one-year model project for training professional home visitors. Jaclyn Miller, social worker at the John Tracy Clinic, describes services offered by the home visitors to parents of deaf-blind children, particularly those living in remote or isolated areas.

Services to deaf-blind children was the third major area investigated by participants at the Special Study Institute. An education program offered to deaf-blind children in Fullerton by the John Tracy Clinic is the subject of a presentation by Judy Cecchini, teacher of the deaf-blind, John Tracy Clinic.

Sam Hansen, Division Chairman of Enchanted Hills Camp, outlines the summer program now being offered for deaf-blind children, describing the custom-designed motor activity center in enthusiastic detail. The Lighthouse for the Blind is expanding its services beyond that of the summer camp. Services for people with low vision are now being provided in northern California. Because of efforts required to establish the Low Vision Clinic, however, further work on the establishment of a transitional college for the Blind has been temporarily postponed.

Charles Zemalis, teacher at the California School for the Blind, Berkeley, describes a vocational training program that his school has developed for older deaf-blind children. A three-part curriculum guide describing the program in detail is now available from the Southwestern Region Deaf-Blind Center.

For those children with more complex educational problems, Jerry S. Fields, Program Director, Sonoma State Hospital, discusses the changing role of state institutions and their function as an extended school service to the community. "Don't view us," he says, "as a final 'dropping-off' place, a place where the child goes when he has no place else to go, for by and large, most of these residents you have given us at one time or another are going to be coming back home to you... and they are going to be served in your community somewhere."

The conclusion of the conference was devoted to resources available for parents, teachers, and other professionals working with deaf-blind children in the community.

A primary guide for parents is the preschool correspondence course offered free of charge to parents of deaf-blind children. This learning program is described by Cheryl Brisco, administrative assistant at the John Tracy Clinic.

For those older deaf-blind children no longer at home, but who still need training in self-care skills, Carole Rouin, writer-editor, John Tracy Clinic, describes the program offered in Learning Steps: A Handbook for Persons Working with Deaf-Blind Children in Residential Settings.

Marilyn Dryden, a research specialist under contract to the State Department of Education's Bureau for Physically Exceptional Children and the Office of the Riverside County Superintendent of Schools, reviews the development of an information and resource packet for parents. Mrs. Dryden is a parent of a deaf-blind child.

Virginia McDonald, guidance coordinator for the Office of the San Diego County Superintendent of Schools, describes the need, use, and establishment of a computerized data processing system for effective identification of deaf-blind multihandicapped children.

The evaluation program available at the Educational Assessment Center for Deaf-Blind Children at the California School for the Blind, Berkeley, is detailed by Laurice S. Jenkins, project director for the center.

One entire morning of the conference was devoted to Cathy Groves, supervisor of the deaf-blind program at the Child Study Center, University of Oklahoma. The early sensory motor experiences and the development of a perceptual system for the deaf-blind, relating these to the child's conceptual and intellectual development, are the subjects of her presentation.

The Special Study Institute for Teachers of Deaf-Blind Multihandicapped Children has been one of several ongoing efforts to effectively meet the special needs of deaf-blind children and their families.

The participants of institutes such as this are encouraged to gain a deeper understanding of the problems of the deaf-blind, and they are afforded an opportunity to share their most successful methods of helping deaf-blind children and their families realize their full potential.

Experience has shown that with our present knowledge, skills, and understanding a great many such children can be helped to a point where they are happier people, able to contribute to our society on a higher level than would have been the case had they not had such help. We have found that the key is "working together" -- for everyone who works with the deaf-blind child is important to the child's growth.

We have learned through this institute that a great deal more needs to be done, but future accomplishments will accompany our continuing efforts.

At the conclusion of the Special Study Institute, participants were asked to evaluate the workshop presentations and suggest inservice training topics they felt were needed.

Evaluation indicated that the reports of activities and services offered by the Southwestern Region Deaf-Blind Center were informative, and they stimulated interest in future in-depth projects.

Topics of interest suggested for further inservice training included the following:

Infant and child development
The deaf-blind child's family
Programming
Language and communication
Behavior management
Paraprofessionals
Extended curriculum
The deaf-blind child and the vision specialist
The deaf-blind child and the vocational rehabilitation counselor
The deaf-blind child, the hearing specialist, and the psychologist
Educators of the deaf and educators of the blind
Media as an instructional aid for deaf-blind children
Methods and techniques

The list of topics was included in the 1975-76 proposals that were sent to the U.S. Office of Education, Bureau of Education for the Handicapped, Washington, D.C. Funding was approved, enabling the Southwestern Region Deaf-Blind Center to continue meeting those needs expressed by parents and professionals in the area of programs and services for deaf-blind children. The center has acted upon the expressed needs for workshops; and the topics listed above are being offered in workshops, conferences, and seminars throughout the region. Further information of the presentations may be found in the Directory of Workshops 1975-1976, which is available from the Southwestern Region Deaf-Blind Center, California State Department of Education, 721 Capitol Mall, Sacramento, CA 95814.

Planning

The Deaf-Blind Category in the California Master Plan for Special Education

Presented by Cherrie Sevick
Member, California Commission on Special Education

Years ago I was very naive. In my very first presentation to a legislative education committee, I said to that august body (since I did not know any better): "Why do you make us come here and fight for the retarded and fight for the emotionally disturbed and on and on? Why don't you just say we will do what has to be done for all our handicapped children?" Although my own identification is with the field of mental retardation and particularly with severely retarded, I am equally concerned for those who are forced to operate on a retarded level for lack of opportunities for it to be otherwise.

For 25 years I have worked from a philosophy which tells me that education is for all children, no matter how limited or how unlimited their capacity to absorb education or how great their need for certain kinds or methods of education. This philosophy is gaining acceptance across the country.

When I was a welfare department social worker, I learned, to my astonishment and disbelief, that our society actually took children who were handicapped and handicapped them further by giving them no training, no education, no services of any kind. The fact that educators could write them off saying that what they needed was not "education" seemed to me as incomprehensible as for a doctor to say that treating critically ill patients was not "medicine" or for the firemen not to fight fires that were too extensive. So it was that I began to lend my strength to the battle being waged by people who believed that all children can learn, and, if they do not, the fault does not lie in the child, but in the lack of the right kind of education. These people believed, long before the Supreme Court said so, that "education is the continuing process by which an individual learns to cope with his environment." If this learning comes painfully slow, if the environment is meagerly restricted or is expensive beyond belief, this only means that the process should be adapted, not abandoned.

I would like to entitle this presentation, "Hang in There, Help Is Coming," for now we are beginning to see a light at the end of the tunnel. For the past three years, the Special Education Support Unit of the California State Department of Education and the State Commission on Special Education have put forth a tremendous effort that has culminated in a bill, Assembly Bill 4040, the Right to Education Bill. You are here at the most critical time. I just checked, and I learned that this very day the bill will be heard on the Senate floor. We are literally holding our breaths to see if our Legislators and our Governor will do "what has to be done." We can, however, be optimistic for our bill because of the following: (1) the Pennsylvania case is generating much positive activity on the issue of a right to education for every child; (2) the use of the courts is increasing; (3) consumer groups are growing in strength and sophistication; (4) the number of advocacy offices is growing;

(5) breakthroughs in medical science are raising survival rates for damaged babies and correcting many heretofore uncorrectable defects that stand in the way of learning; and (6) renewed funding of the Elementary and Secondary Education Act will assist states in providing for handicapped children.

What does the bill say? It begins by acknowledging that California has established education programs without regard to gradations and to the severity of disabilities and, consequently, we now have 28 separate kinds of special education programs in California with many children still unserved. The bill also states that our so-called permissive programs make many children eligible for programs without giving them access to such programs. Assembly Bill 4040 says that every individual with exceptional needs is to be provided an education appropriate to those needs through an individually developed plan in a publicly supported program. It says that those who require intensive services are eligible from ages three through twenty-one and that below age three such programs are permissive. We already have one infant stimulation program in the public schools. The bill states that each school district, acting alone or jointly with its office of county superintendent of schools or with contiguous districts or counties, shall write comprehensive plans for special education taking local conditions into consideration as long as they follow the California Master Plan for Special Education.

One provision is a special joy. It requires the schools to seek out the handicapped. Another provision eliminates labels by using one designation: "individuals with exceptional needs"; however, four classifications are established for reporting purposes. These are (1) communicatively handicapped (including the deaf-blind); (2) physically handicapped; (3) learning handicapped; and (4) severely handicapped. The bill calls for two levels of assessment. The first is the school appraisal team. The second is an educational assessment team for those who require more definitive assessment, whose education plan has not been effective, or who are required (1) to leave their school of residence; (2) to attend special classes or centers; or (3) to change plans upon appeal from a parent or the program specialist.

Assembly Bill 4040 places heavy emphasis on mainstreaming with the needed supporting services for both the pupils and the teacher. It calls for four program components: (1) special classes and centers; (2) a resource specialist program; (3) designated instruction; and (4) nonpublic school services. All four components may be put together in whatever combinations are appropriate. Four supportive services are identification; assessment and instructional planning; management, transportation, and capital outlay for special equipment; and facilities. The heart of the Master Plan is found in the resource specialist program. One or more resource specialists with aides will be placed in nearly every school operating under a comprehensive plan.

Resource specialists will be credentialed special education teachers who have three or more years of full-time teaching experience and who have completed or enrolled in advanced training. They will not be utilized as classroom teachers nor have pupils assigned to them for the majority of the day.

They will assist special pupils and their teachers in the regular classrooms, work with the assessment teams, help design individual instruction plans, coordinate the services necessary to implement the plans, coordinate with program specialists who will be the experts in specific fields of disability, and evaluate pupil progress. They will be a new breed. Because they will work with all disabilities as a pediatrician works with all illnesses, they must know when to call in the various specialists. The program specialist will be the person who will work with the deaf-blind pupils. The act defines the program specialist as a credentialed special education teacher with advanced training in the education of individuals with exceptional needs and with specialized knowledge of communicatively handicapped, physically handicapped, learning handicapped, or severely handicapped pupils.

Assembly Bill 4040 promotes maximum interaction with the general school population in a manner appropriate to the needs of both. Income to the school is generated on the basis of programs provided, not on categorical disability groupings. The state will fund the excess costs of standard special education programs uniformly. For example, there are specific sums for each class and for each hour of designated instruction regardless of the disability. The bill encourages experimentation and innovation, and requires the involvement of parents and guardians in the planning, placement, and review. It requires advisory committees on the local level and, something that was a surprise to all of us, the legislation requires the majority of the members to be parents. It requires coordination of the schools with public and private agencies, and the use of such agencies and of private schools when such programs are "more appropriate to the needs of the pupils." It has an evaluation component and explicit due process. The bill begins implementation with a limited number of schools in 1975-76, 1976-77, and 1977-78. Then, after reviewing what all this has accomplished, statewide implementation will be determined by the Legislature. If we get our bill, doubtless many, many amendments will be made. But it establishes the right to education and to appropriate education, education that must be adapted to a child and never denied to a child.

When Assemblyman Frank Lanterman and Superintendent Wilson Riles held their press conference to introduce Assembly Bill 4040 and to explain the great need for it, a young reporter asked, "Why wasn't something done about this a long time ago?" Perhaps the fair answer is that as a society we did not understand enough about the handicapped to realize that anything could be done. We did not understand enough about education to realize that it did not necessarily have to be tied to the printed page. We did not understand enough about human rights to realize that when government undertakes to provide a service, that service must be provided for all who are equally eligible. But now we do know, and we still have children who are not being educated; or who are being inappropriately educated; or who are being educated by charitable organizations, like mine, on the proceeds of rummage sales and raffle tickets. I should not be melodramatic and say "There is no room for them at the inn," but factual and say there is no place for them in our schools. Now we have a Master Plan for Special Education and, hopefully, a bill to begin implementing it. We will continue our work so that when these children are grown, no young reporter need still be asking, "Why wasn't something done about this a long time ago?"

Curriculum Improvement Committee

Presented by Joyce Gillis
Teacher, Sonoma State Hospital

The purpose of the Southwestern Region Deaf-Blind Curriculum Improvement Committee is to define a curriculum that can be used for deaf-blind persons from throughout the southwestern region. Although there has been excellent literature concerning programs for the deaf-blind individual, the Southwestern Region Deaf-Blind Center is answering a call for a curriculum in a deprived area of the deaf-blind. We are trying to find a suitable curriculum for the preteen or teenage deaf-blind child and for the child who is at a little higher age level.

The life of the curriculum committee will be approximately two years. The steering committee first met on June 11, 1974. A calendar of events for the next two years was established. There was also a detailed discussion on an institute for teachers to be held at the end of August. The committee members were asked to recommend speakers for the institute. Members also discussed establishing more efficient communication between the steering committee and the planning committees being established in the Southwestern Region:

The members of the steering committee are:

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If any of you have any questions concerning the curriculum steering committee or planning committee, please feel free to contact Paul Starkovich or any of us on the committee. We would appreciate receiving information about curriculums for deaf-blind children. We also would be interested in obtaining curriculums for other related areas. Send a copy of the curriculum or send us the address and pertinent information as to its availability for purchase.

The curriculum now being written is for you and for your children. Please help us out.

Programs for the Deaf-Blind in 1980

Presented by Edgar Lowell
Administrator, John Tracy Clinic

What I want to talk about is something in which most of you are not primarily interested. For the most part you are concerned, as I am, with the delivery of services. That is an overwhelming, all-consuming endeavor, and rarely do we have the luxury of time to raise our heads up out of the rut we may be digging and look around and ask, "Hey, what is going on here, and what is going to go on in the future?" In many cases that is a very difficult question. Although some people make it a practice to predict the future, I think it is a very difficult task. In the case of programs for the deaf-blind child, there are certain characteristics that make it a little easier. Because of the 1964-65 rubella epidemic, we have a large group of handicapped people with known characteristics. It is possible to predict certain things about them.

Traditionally, we fail to take notice of the early warning signals. We wait until something has happened, until conditions have reached crisis proportions, and then we scurry around like mad and waste a great deal of money, tooling up to do an emergency job that could have been done in a more leisurely and economically efficient fashion. I think one has only to look at government expenditures on scientific programs following the launching of Sputnik. The government poured millions into crash programs, and you have to believe a great deal of it was not spent very well. Knowledgeable people with

foresight could have made some predictions about the scientific needs of our country and; acting upon those predictions, we could have launched a more gradual and more efficient program.

We did the same thing earlier with retrolental fibroplasia. If one looked at the growth curve of blind children under two years of age and acknowledged the absence of a known cure at that time, one could have predicted that every institution for the blind in the United States was in for serious trouble because there were more blind infants under the age of two than there were in all of the blind institutions at that time. And what did we do? We sat back and went right along as if everything was going to be all right. Fortunately, because researchers discovered the cause of retrolental fibroplasia, the crisis never developed.

The same thing happened in the case of the 1964 rubella epidemic. We knew in 1965 that we had a problem on our hands, and by and large we were not as responsive to that information as we might have been.

We could have made some fairly accurate predictions about the number of children who would be requiring special training and about the number of personnel who would be required to provide that training. We would not have the situation that we have in the United States at this time when a large number of deaf-blind children still are receiving no service, or totally inadequate service.

Although I could continue elaborating on this theme, to do so would be unproductive. Today, our situation is not good. We do not have as many facilities, as many programs, as many people with the right kind of training as we would like to have. We cannot solve all of today's problems, but we can make a positive contribution toward the solution of some of tomorrow's problems for the deaf-blind through forward planning. That is what 1980 Is Now is all about. We chose that period because, in 1980, the 1964 rubella children ought to be about sixteen years old. At or near that time, we believe that there will be changes both in their living needs and in their training needs. We believe that nonhome placement will be significantly greater around that time, as the children become adolescents. We think there will also be a transition from what we like to think of as education to some type of prevocational or vocational training for many of them.

The plan for 1980 Is Now was to take a look at individuals at this time and try to predict what their needs will be in 1980. We wanted to try to predict the number and the kinds of programs that will be needed to meet those needs, the personnel who will be needed to staff the programs, and the training programs that will be needed to train those personnel. If we can do that, I think it would be a great help to government at all levels. A very significant amount of money will be spent on assisting deaf-blind persons, and it will be more efficiently spent if we have appropriate prior planning.

An attempt has been made to formulate a plan. The task is not complete, but let me tell you what we have done. In our 1980 Is Now meeting, we estimated that there are approximately 5,000 deaf-blind individuals. The estimates vary widely because of the problem of defining what is meant by deaf-blind. Some

estimates are as low as 4,400, whereas the Rand Corporation report places an upper limit at around 7,000. We have discussed this matter with regional coordinators for the deaf-blind, and they all agree that their current figures are low and they are finding additional children constantly.

We asked Benjamin Smith, Director of the Perkins Institute, to make some estimates about the capabilities of the deaf-blind population in 1980. This is a very difficult thing to estimate, but we felt that Mr. Smith would be eminently qualified to make an attempt. What we really wanted was some estimate of the kind of life-style and occupation that might be appropriate for this group. Mr. Smith came up with three groups: middle trainable and below, upper trainable through lower educable, and middle educable and above. He estimated that in the middle trainable and below group, we would find 60 to 75 percent of the population, and that most of these will be dependent persons requiring care and supervision for most of their lives. The upper trainable through lower educable represent 15 to 25 percent, and the middle educable and above are 5 to 10 percent of the population.

Other attempts have been made to estimate the potential of this population. One attempt was made by the Management Analysis Center, which used a four-way breakdown: (1) custodial care/sheltered living; (2) sheltered employment/sheltered living ; (3) sheltered employment/semisupervised living; and (4) minimally supervised to independent employment/semiindependent to independent living. Analysts at the center also estimated that a majority of the population is in the lower categories; that is, those requiring more care and supervision. To make matters worse, our figures indicate that a sizable number of individuals are not receiving any service or totally inadequate service. This suggests that the likelihood of these persons achieving their full potential is minimal.

A second attempt involved making further assumptions and deriving some estimates about personal needs. This was a very difficult task because most people were more concerned with the problems of providing service today than conjecturing about the service needs in 1980. The kinds of projection that could be made, assuming there are 5,000 deaf-blind people, can be illustrated as follows: if you wanted them all to be in an educational program with a teacher so you could help them develop their abilities at whatever level, and if you estimated that we could get by on an overall pupil-teacher ratio of 5:1, then we would need 1,000 teachers. Josephine Taylor from the U.S. Office of Education, Bureau of Education for the Handicapped, Personnel Preparation Division, reported that we will graduate about 80 teachers of the deaf-blind this year and possibly 120 next year. If we take 120 as an optimistic estimate and correct it for attrition, which is very high in this field, you can see that by 1980, we would not have 1,000 teachers. Please understand, I am not suggesting that that is what we want. But I use these figures to illustrate the kind of projection that could be made.

If you decided you want 1,000 teachers, how many teacher preparation programs would you need to produce 1,000 teachers by 1980? If you estimated 20 graduates per program per year (assuming that you could not get new programs started before 1976), that would give you four years prior to 1980, so that each program could produce 80 teachers. If you figure that you would lose 30 of those by attrition, and I believe that is an underestimate, you would have to have 20 teacher preparation programs to meet that need.

Actually, I doubt that our needs would be primarily for teachers, but for a variety of trained personnel, particularly those in the prevocational and vocational areas, including residential care workers, recreation specialists, and social workers. Once you get a fix on the number of training programs you need, it is possible to begin to compute costs.

The next step would be to make similar estimates with respect to facilities and the cost of operating them. The leadership training class in the area of the deaf-blind at California State University, Northridge, made some estimates as a part of a class exercise. Members of the class divided the population into units of 100 and came up with a cottage-type living program with a ratio of eight paraprofessionals and one professional for every 20 deaf-blind individuals. The cost for this was about $12,000 per child.

Estimates of a school situation where there were six paraprofessionals and a teacher for two deaf-blind children ran the cost up to $15,931 per individual. Those estimates are in 1974 dollars. By 1980, they would have to be increased by the annual rate of inflation, which might be another 8 or 9 percent. Projecting these figures to care for the total population suggests a very large amount of money. Some compromises will have to be developed. A higher ratio of paraprofessionals to professionals would help to reduce the cost, but that in turn suggests a new role for the teacher and possibly the initiation of new training programs to prepare existing teachers for supervisory roles.

Again, let me repeat that we are concerned here more with the process of estimating our needs rather than suggesting that any of these estimates are accurate or represent necessarily desirable programs. We believe that this is an activity that should be receiving more attention. We think it would be helpful to complete these estimates with a great deal of input from all of you on the firing line here today. Once they are written out, everyone could criticize them and possibly come up with alternative plans. The advantage would be that we would have a clearer picture of what our needs are going to be and, hopefully, be prepared to meet them.

Another matter which received considerable attention at the 1980 Is Now conference was the matter of alternative living arrangements. Norbert Rieger, a psychiatrist, has been doing some very exciting work with satellite homes for severely mentally disturbed children. They appear to have advantages over traditional residential placements. Whether the concept can be adapted for the deaf-blind is a question that should be explored. I can, however, visualize a series of satellite homes set up around an educational institution or a sheltered work activity.

Estimating the costs of these plans continually led us to the fact of the staggering costs and a consequent desire to seek ways to increase our dollar cost effectiveness. This, in turn, suggested the possibility of some type of large regional facility. There was some opposition to this concept because it sounded like the traditional institution, but I believe that it would be possible to organize such a regional facility where economy-of-scale would enable you to better meet the unique mobility and communication needs of the deaf-blind individual.

Another topic which attracted a great deal of attention at our meeting was the discussion by Frank Laski, a lawyer, who described the possible impact of recent court decisions on the future of programs for the deaf-blind. It sounded very much as though we may be faced with significant changes in our future programs for the deaf-blind individual, if, in fact, some of the things we are doing today are declared illegal.

In summary, we believe that the deaf-blind population in 1980 will have significantly different needs than in 1974. We will need new and innovative programs to provide for the life-long needs of many of these deaf-blind individuals. The cost for such programs will be large. We believe that the expenditure of such funds can be more efficient with adequate planning. We hope to continue to refine our projections, and I hope that talking with you today about our efforts may motivate you to give some thought to the role you will be playing in 1980.

Services to Parents and Professionals

Leadership Training Program

Presented by Ray L. Jones
Project Director, Center on Deafness
California State University, Northridge

I am often asked by the people in the field if they can visit the National Leadership Training Program, but I have to stop for a moment and ask myself, "What is the National Leadership Training Program?" If they come out, I can show them some buildings; I can show them our offices; I can have them meet the faculty. But is that really what the National Leadership Training Program (NLTP) is all about? It is more than just buildings; it is more than faculty; it is a concept and a dream.

It is a dream that began with Mary Switzer and Louise Tracy back about 1959. Boyce Williams had been talking to Miss Switzer about the visible future of our deaf-blind citizens. She was well aware that the field of education of the deaf had been at a virtual standstill for almost a century. If we were going to avoid the inevitable problem of either extensive rehabilitation of the deaf or outright welfare for the majority of our deaf citizens, then something had to be done to give us a new breed of leadership in the field.

At the same time, Congress was considering a bill which would have granted 500 fellowships to increase the number of trained teachers of the deaf. As this bill was under consideration, someone asked the question, "Suppose we get those 500 fellowships. Who is going to train them?" It became obvious in the field of special education, particularly in the area of deafness, that, although we were proposing the major centers to train teachers, we really had no program to train those who educate the teachers and no program to move people from the teaching ranks into the field of supervision and administration. These two events led to the concept that Miss Switzer and Mrs. Tracy initiated as the National Leadership Training Program in the Area of the Deaf.

The purpose of the program was to bring to the profession a group of new leaders who were acquainted with both the educational and the rehabilitation needs of deaf citizens. The NLTP was a program that would put students on the cutting edge of related disciplines. The program would contribute significantly to the field of education and rehabilitation. The program would bring to a campus each year ten of the most promising young people in the field of deafness in America. They would be exposed to a wide range of experiences, including interdisciplinary training from the departments of psychology, sociology, health science, and education supervision.

It was a program that would include wide exposure to field experiences. Time would be spent with the rehabilitation counselor for the deaf, who in most cases attempts to accomplish, at the end of school, things that might have been better accomplished while the youngsters were in school.

Program participants were placed in residential schools and in day schools. The NLTP brought together talented and enthusiastic consultants to expose them to new ideas. The program was not designed to increase their technical skills as teachers or as technicians in any field. The focus of the program was on the human relation skills and on the conceptual skills. Participants would try to see the big picture and to fit each component into that big picture.

The program began in 1962 with ten candidates. Among those ten was one that you met here today, Bill Blea. He came to the NLTP as a teacher of the deaf. We have now finished our thirteenth year, and we have 175 graduates in the field.

People could not understand at first why California State University, Northridge, would have a program in deafness, because none of its professors were educators of the deaf. Only one of the professors had a deaf daughter. None of the others had deaf relatives. The original participants in NLTP were not sure what they were going to learn. In the second year of operation, two deaf students were selected to be participants. No one knew what the dynamics would be or how they would affect the program; however, they added a whole new dimension to the training. Before, there were experts who knew all about deafness. Now, there were people who could speak from first-hand experience, who had gone through the frustrations of elementary schools and secondary schools that were not meeting their needs. These people had gone to the rehabilitation counselor for help and had not been able to get the kind of help that they felt they needed. They had been held back professionally because of a lack of educational opportunities.

Since the first program, 59 deaf students have successfully completed programs for master's degrees in the NLTP. Fifteen of them have gone on for doctorates. The sixteenth student completed his doctorate at Brigham Young University in Utah. Others have received doctorates at the University of Arizona, University of Nebraska, University of Cincinnati, and other universities.

The program has been, in many respects, far more successful than at first was realized. The graduates are moving rapidly into the ranks of leadership, such as superintendents of state schools for the deaf. There are two deaf superintendents for the first time in history. Graduates are moving into leadership positions in departments of rehabilitation; two graduates are serving as state directors of rehabilitation or the equivalent. Ten graduates have served as state consultants for the deaf in departments of rehabilitation. Numerous graduates have served in state departments of education in the area of deafness. Other graduates have entered teacher training programs and rehabilitation training programs throughout the country.

The NLTP thus is initiating a whole upward movement of young people into leadership positions in the field of deafness, and it is accomplishing the dream of Mary Switzer and Louise Tracy in giving us a new breed of leadership.

The success of the first NLTP led to the development of a second National Leadership Training Program in the Area of the Deaf-Blind, which was initiated in the summer of 1974. In about 1964, we made our first contact in the area of

the deaf-blind when a young man, Richard Joy, was brought to our attention. He came to the campus and met with our students. We helped him get employment one summer in an electronics assembly plant, and our interest in the deaf-blind continued.

That same year we began some experiments in the area of telephone communications, recognizing that the deaf person was limited by the very device that had been developed to help him. Alexander Graham Bell had developed the telephone as an aid for his hearing-impaired wife, but it had become his number one enemy. We developed, through the university, a little gadget we called a "speech indicator." With the aid of this device, the deaf person with good speech was able to get on the telephone, identify signals on the telephone, get a message through, and with some training get a message back. It was slow and it was cumbersome, but it sure beat having to drive 20 miles to find out whether the person he wanted to visit was home or not.

Word of the speech indicator got out. We were invited by the American Foundation for the Blind to adapt this to the needs of the deaf-blind. We developed a tactile speech indicator and, beginning in 1965, we began a series of annual training programs on our campus where we trained deaf-blind adults in the use of the telephone with the aid of this little device. It proved to be an extremely rewarding experience, which brought us into a number of areas that I never dreamed we would be into. For example, several years ago, we met a very charming young lady. I should say young in spirit, for she was about sixty. She was from Utah, originally from the old country. Both deaf and blind, she had a remarkable enthusiasm for life. Not only did she play the piano a bit, but she also danced the jig and did not hesitate to demonstrate for us.

She thoroughly enjoyed her experience with us, and because she made some friends here, she wrote us the next fall and asked us to provide a chaperone for her honeymoon. She had married a blind man from Utah. They were coming to California on the bus, and they wanted to know if we could meet them and arrange to chaperone them through Disneyland, one of the movie studios, and other sight-seeing activities. We even arranged a little reception for them on campus and provided our best interpreter, Fay Wilkie, to accompany them on their honeymoon. We told Fay that this was one of the most remarkable assignments we have ever made-- chaperone for a blind man and his deaf-blind wife on their honeymoon.

In 1969 or 1970, I was invited to serve as a member of the Advisory Committee of the National Center on Deaf-Blind Youths and Adults in New York. In the three years I served on that committee, I became very much aware of the population being served, of the needs of deaf-blind, and of the fact that, in general, the deaf-blind were not being challenged to achieve their potential. I once proposed that we convene a national think-tank to explore the possibilities of higher education for the deaf-blind. My proposal was met with a somewhat chilly reception, and my response was that somewhere in the educational system there are other Helen Kellers, Bob Kinneys, and Bob Smithdases. These people are in the system, and somewhere they are now in the schools. We ought to do what we can to identify them and move them forward to achieve their full potential in higher education. We have certainly laid some groundwork, but I am not sure that we have accomplished that.

On our campus, in addition to the 120 deaf students who were enrolled in the spring of 1974, we now have three deaf-blind students enrolled. These are Usher Syndrome students who have not completely lost their vision, and they are able to function successfully.

We feel that the National Leadership Training Program should be expanded. It has demonstrated its success by bringing people in from industry, as it did with Vic Galloway and Norm Silver; by bringing people in from other government fields, as it did with Bob Sanderson from Utah; and by recruiting people from other fields into the field of deafness. Back in 1966 or 1967, we recruited a young man named Paul Starkovich into the NLTP and got him as far from Arizona as Los Angeles. While he was waiting to come into the NLTP he found employment in Seattle's Deaf-Blind Center. We have never yet been able to get him back.

Summer Workshop

Presented by Edgar Lowell
Administrator, John Tracy Clinic

One of the best kept secrets in the southwestern region is the Summer Workshop for Teachers of the Deaf-Blind. This is the fourth year we have had these workshops, and yet we have consistently failed to provide adequate publicity. I hope that by speaking here today I can alert you all to the fact that this is an activity that is likely to continue at the John Tracy Clinic.

Our program this summer was a six-week graduate-level program offered through the University of Southern California. It was supported by a grant from the Southwestern Region Deaf-Blind Center, which provided tuition and stipends of $75 a week for the students enrolled.

This year 24 students attended; although we gave priority to applicants from the southwestern region, students came from all over the United States.

We tried to be responsive to what people in the field seemed to need. At first we felt there was a great need for assistance to teachers' aides, so the first summer program was essentially an undergraduate program for aides. This year, in talking to teachers, we noted a great interest in total communication and its application to the deaf-blind classroom. That became the program's major theme.

In our four-year experience, we have learned that we have to have a somewhat different course content depending on the experience of the group. Experienced teachers, those who have worked with the deaf-blind, are able to utilize our deaf education material and make good use of it. Those with less experience, perhaps those who have not taught or are aides, have more difficulty in making the transfer.

You might ask why John Tracy Clinic, with its strong oral philosophy, is teaching total communication. We have been asked about that many times. We felt that it was highly appropriate in our deaf-blind program, and we were very fortunate to have Suzie Kirchner handle this section of the program. She did an outstanding job.

We have had a number of very distinguished visiting faculty members. Members of our own faculty have shared with others the John Tracy Clinic language philosophy and techniques of working with children. Language is language, and it really does not make much difference whether you are using oral or manual communication or some combination thereof. An understanding of how language develops and how one can teach meaningful language concepts is important regardless of your particular philosophy. We have tried to share the clinic's language philosophy and procedures for engaging parents in the process of educating their children.

The overall evaluation of the program by the participants has been very positive. We hope to have the program again next year; however, that will depend on the availability of funding and on whether there is a need for another workshop. The last thing we want to do is take on additional programs unless there is a strongly felt need in this region. We would appreciate any comments or suggestions that any of you might have concerning the summer workshops.

Parents' Summer Workshop

Presented by Evelyn Greenleaf
California School for the Blind, Berkeley

For the past five years, an institute for parents has been conducted at the California School for the Blind, Berkeley, at the conclusion of the school year.

The fundamental concept upon which the institute is based is that of the parent as the child's first, continuing, and potentially most beneficial educator.

The stated goals and objectives of the institute are the following:

1. Reach geographically isolated parents of deaf-blind children, preferably those children of preschool age who have been receiving limited services.

2. Provide assistance and support to distressed parents who are seeking help.

3. Provide information pertaining to services, programs, and organizations available for deaf-blind children and their parents.

4. Enable parents to (1) acquire attitudes and learn techniques that are helpful in working with their children at home; (2) develop realistic insights into children's potentialities; and (3) achieve interaction, empathy, friendship, and rapport with other parents who have a common problem.

Perhaps the most benefit is derived from our efforts to help parents develop realistic insights regarding their child's potential. Parents may have the idea that the child can do absolutely nothing or, in contrast, they may expect him to go to college. We attempt to develop some realistic attitudes.

We try to provide a setting for interaction, friendship, and rapport among parents with similar problems. Isolated parents often feel that they are the only ones with a child who keeps them awake nights and who cannot be toilet trained, but when they come together in a group they realize they are not alone. Parental acceptance of the children is primarily derived through informal parent interaction, not entirely from the structured program.

The institute is in session from Sunday afternoon until the following Friday afternoon. Approximately nine children and accompanying adults participate. Accompanying adults include parents, foster parents, grandparents, siblings, and teachers. They reside in the dormitories at school. There is no cost to parents except for transportation.

Daily schedules include parent observation and classroom participation, teacher-parent discussions, individual conference time with teachers and principal, an educational class for parents, and a group counseling and therapy session for parents. Consultants and speakers include an audiologist, an ophthalmologist, a psychologist, a pediatrician, the project director of the Southwestern Region Deaf-Blind Center, and other professionals who may be invited to meet specific requests of parents. The afternoon therapy sessions are conducted by a social worker.

Parents fill out an evaluation form at the conclusion of the institute. This has been most helpful in improving program planning.

Announcements of the Institute are mailed to professionals and parents during March or April. If you know of children and parents who may benefit, please contact the Southwestern Region Deaf-Blind Center office or Evelyn Greenleaf at the California School for the Blind.

Project Spin-Off

Presented by Jaclyn Miller
Field Coordinator, Project Spin-Off
John Tracy Clinic

The initial field study on the John Tracy Clinic Correspondence Learning Program for Parents of Preschool Deaf-Blind Children was conducted with the help of 67 families in California. Sandra Meyer made home visits to many of these families in an attempt to assess how the course was actually being implemented by the parents in their homes. Something noted early in these visits was that these families were in need of support in many ways other than in the specifics of how to teach their children. In fact, although they were provided with excellent "how to's," many parents were unable to make the best use of the material or of their own time. These parents, and often their extended families, felt isolated

and unsure as they tried to cope with their unique and difficult situation. The necessity of the role of parent-as-educator becomes uncomfortably clear to these families. While the parents may still be dealing with the intense emotional reactions to having a handicapped child, they now face the anxiety associated with learning a critically important new role and feeling overwhelmed by how much they are going to have to learn in order to help their child.

Those involved in the program felt that the families could benefit from the Correspondence Learning Program if it was augmented by the emotional support that could be provided by a trained "home visitor." Therefore, Project Spin-Off was proposed "to provide and stimulate direct and continuing educational and psychological service to parents of deaf-blind children." The first priority was to reach those identified families who were receiving no services for themselves and/or for their deaf-blind children. Locating this population was accomplished by means of a needs assessment questionnaire that was sent to each of the regional coordinators, asking them to provide the number and location of families who were not receiving help and who could benefit from a home visitor.

There were 12 Spin-Off home-visitor positions available, and seven of the ten regions chose to enter into contractual agreements to participate in the project. The seven regions and number of home visitors were as follows: Northwest, 2; Southwest, 1; Mountain-Plains, 2; South Central, 2; Texas, 2; Mid-Atlantic, 2; and South Atlantic, 1.

The project, which was to begin in September, 1974, was preceded by a three-week orientation workshop (August 5 through August 23, 1974) at John Tracy Clinic in Los Angeles. The workshop was attended by the 12 people who were to become Spin-Off home visitors, plus 26 people who were employed in various capacities in the field of deaf-blind (i.e., special education teachers, social workers, physical therapists, administrators, and volunteers). The level of experience ranged from new in the field to ten years experience. The three-week workshop had as its purpose the enhancement of the participants' ability to do the following:

1. Use the John Tracy Clinic Correspondence Learning Program for Parents of Preschool Deaf-Blind Children.

2. Deal effectively with the emotional reactions of parents of deaf-blind children.

3. Deal effectively with their own emotional reactions as home visitors.

4. Construct and utilize a realistic and functional resource inventory.

5. Utilize available local resources stimulated by Project Spin-Off's activities to extend the number of families served per dollar of federal expenditure.

6. Utilize techniques for effective home visitation.

7. Create and disseminate public information concerning the activities of the regional programs and Project Spin-Off.

The workshop consisted of seminars conducted by professionals with expertise in specialized areas relevant to work with deaf-blind children and their families.

The evaluations from each individual seminar are being processed. A cursory look at the overall workshop evaluation statements indicates that a majority of the participants who completed the three weeks were sensitized to some expanded dimension of their work and to new dimensions in themselves as helping people.

The 12 designated Spin-Off home visitors have now returned to their regions to begin their part in the ten-month project. These people will receive technical assistance throughout the project from the multidisciplinary staff at the John Tracy Clinic. The assistance will take many forms based on the needs of the project and on the needs of the individual Spin-Off home visitors; e.g., WATTS line for five-days-a-week telephone contact, field visits, development of a newsletter, educational materials, and media. The keynote for all activity will be "adaptability," and the staff will endeavor to respond to any and all problems that arise in the field.

The Spin-Off home visitors are just beginning their work. They will be visiting homes, assessing the needs of these specific deaf-blind children and their families, acquainting themselves with community resources, and gathering the data necessary to design individualized programs to meet special needs.

Services to Deaf-Blind Children

John Tracy Clinic Fullerton Program

Presented by Judy Cecchini
Field Coordinator, Project Spin-Off
John Tracy Clinic

Two years ago the John Tracy Clinic expanded its educational program to include a class for deaf-blind children located in Fullerton. In maintaining the clinic's philosophy, the services provided are for the deaf-blind children and their families. The parent and child are enrolled in the program at the same time. The parent learns to be the child's teacher. This important aspect of the John Tracy Clinic program is based on the premise that the parent spends the most time with the child. When the parent is first enrolled in the program, he or she participates as an observer. The parent observes the program activities, sees how the teacher handles the children, and learns to understand the rationale of the various methods and approaches of instruction. The parent then acts as an aide, assisting the teacher in the activities. A mother works with her own child and with the other children in the class. This aspect of parent training helps a mother develop insight in techniques of handling and teaching her child. She begins to realize that the other children exhibit problems, too. Finally, the parent becomes the teacher of a specific lesson, and the teacher becomes the aide. The parent first teaches a lesson prepared by the teacher and later is responsible for creating and preparing other lessons. This phase of the program is to help the parent successfully handle and teach his or her child. The experiences will provide adequate carry-over into the home.

The day school program for the deaf-blind child is based on a multisensory and total communication approach. The primary goals of the program are achieved through coactive techniques coupled with specific training areas to help the child develop more normal reactions to the environment and achieve as many independent skills as possible. The optimal goal is for the child to develop skills where he or she may later function in a sheltered workshop or in the mainstream of life. In short, the class functions to develop the building steps necessary for continued progression of skills.

There are presently four children enrolled in the deaf-blind program. The school year begins in September and goes through May. There is a six-week summer session. This summer, in addition to the regular program, the children were included with an orthopedically handicapped group for swimming lessons at the local park.

The regular school program includes class activities and real life experiences. A minibus is used for transporting children to and from school and taking them on field trips. Classroom experiences thus can be related to the real world. For example, a unit about bread can be introduced. The children taste different breads and learn to make a variety of foods using bread. On a field trip to a grocery store, the children can learn where and how to buy bread.

The school program concentrates on several areas of development including (1) use of residual vision; (2) use of residual hearing; (3) gross motor activity; (4) fine motor activity; (5) personal hygiene; (6) dressing and undressing; (7) eating; (8) toilet training; (9) socialization; (10) preacademics; and (11) communication, including sound awareness, babbling, Tadoma, and the use of signs as a symbolic representation to develop inner language in connection with an activity, to develop a sense of order, and to learn to anticipate events. Language development is presented in a natural environment to provide both language and sensory experiences. For example, in addition to its being a social experience, a cooking lesson provides a structured activity that includes following directions, presenting language, using residual hearing and vision, and using sensory stimulation.

A progress chart is kept on each child using the Callier-Azusa Scale. One copy is kept on file at the school, and one copy is given to the parents. Parents review the evaluation and discuss it in order to recognize the child's progress and areas of need. This helps the parent become familiar with the goals set in school and establishes closer contact between home and school.

Each family is also enrolled in the John Tracy Clinic Correspondence Learning Program for Parents of Preschool Deaf-Blind Children. The teacher of the deaf-blind class visits each home twice a month. The purposes of the home visits are to help with consistent use of the Correspondence Learning Program, give suggestions pertinent to the family, and observe the family functioning. Also, the home visit gives the parents the experience of having the teacher as a guest in the home where they can express attitudes and problems different from those discussed at a parent conference in a classroom. The home visit also provides the parents with a time specifically for them and their individual problems and questions.

In addition to the day school program, the Fullerton project serves as an educational resource for the California state universities and the local high schools. The state universities at Los Angeles and Northridge have utilized the school program as a teacher training facility. Student observers from the Special Education Department at California State University, Fullerton, participate in the program. The students are able to gain insight into the behavior and needs of multihandicapped children and to observe one type of educational approach in dealing with these needs. Many of the local high school students have become interested in the program and have requested visitation days. The John Tracy Clinic supports community involvement and encourages visitations. Any person wishing to visit may call for an appointment. Wednesdays are scheduled for visitors.

Summer Camp for Deaf-Blind Persons

Presented by Samuel Hansen
Division Chairman
San Francisco Lighthouse for the Blind

Unlike most of the conference participants, I am not a professional in the deaf-blind field. I am a real novice, but I am learning. And that is one of the reasons I am taking part in this conference.

My business is advertising, and the reason I am involved with the San Francisco Lighthouse for the Blind is that a couple of years ago my company was asked to give some professional help in fund raising for this organization. That was my start in working with the blind and deaf-blind.

Let me tell a little about the San Francisco Lighthouse for the Blind and how its summer camp activities can be of benefit to the deaf-blind community.

At the present time, the Lighthouse has three main divisions. The first is Blindcraft, which is our factory operation. It provides full-time employment for the blind and deaf-blind. The product line consists of brooms, wine racks, and planters; plans are being made for expanding the line. These quality products are sold competitively in the market place. About 75 percent of those who are employed at the factory are blind or deaf-blind. Plans are being made to provide rehabilitation in this area, but I think we are a couple of years away from this type of activity.

The second division is our Educational and Development Center. Located in a separate building in San Francisco, the center is designed to provide classes in crafts, yoga, braille, typing, and drama. It also provides a social climate and atmosphere for our clients. Most of our clients at the center are between forty and sixty years of age, and our programming will continue to serve their needs. Our programming thrust for the future will be to encourage younger clients to join the center.

The third division consists of the Enchanted Hills Summer Camp, but before I start talking about that, which is my main purpose for being here, let me talk about two other areas in which we are doing feasibility studies.

The first is a low-vision eye clinic. We know there is a great need for such a service. We think that the low-vision eye clinic is about one year away. The second feasibility study is for the establishment of a transitional college for the blind.

Now I will try to describe Enchanted Hills. About six months ago, Bernie O'Neil, who is the president of the Lighthouse, told me that because of some changes in the organizational structure of the Lighthouse he wanted me to be chairman of the Enchanted Hills Division. He said that it really would not take much time and that it was not really a tough job!

I said, "Yes."

Six months later I made it a point to see Bernie to thank him for the assignment. I never worked so hard in my life, but I don't believe I could have had a more rewarding experience.

The camp is 360 acres located high above the Napa Valley. It is green and has lots of trees, rolling hills, a hundred and one different plants, and a lake.

The lake provides boating, fishing, and sounds.

Two beautiful chapel areas are nestled in the trees, and at night campfires provide more than physical warmth.

The lower area is where the preteen group lives in rustic cabins. We can provide for 60 preteen children during a two-week period.

The swimming pool is always filled with splashing and laughing children. Swimming lessons are offered all summer long.

Enchanted Hills also has a unique sensory play area. About two years ago, Helge B. Olsen, lecturer in design in the Department of Applied Behavioral Sciences, University of California at Davis, suggested the innovative sensory playground area for Enchanted Hills. It started with a combination climbing structure and playhouse (pyramid) and a suspension rope bridge attached to it. A water slide is built into the side of the hill, and the children start at the top and go through a large pipe tunnel and end up in a small pool of water at the bottom.

The children can experience three-dimensional movement on a giant water bed, which is 50 by 50 feet.

A giant rope spider web hangs from four large trees and provides a climbing experience with lots of dimensional movement. In addition, we have what I call the "slide for life." Our public relations person keeps telling me not to use that name as it creates a bad image; henceforth, it will be called the chair slide. It consists of a chair hanging from a 150-foot-long cable suspended between two large platforms. A child climbs into the chair, and with the aid of gravity, has a fast and exciting ride. The children pull the chair back to the high platform by means of a tow rope.

Finally, in the sensory area, we have a geodesic dome. This is the workshop area. Here, with the understanding leadership of counselors, the campers are inspired to be creative. With simple tools, they build just about anything they want to such as gocarts, toy houses, boxes, or wooden sculptures.

Dr. Olsen not only designed these activities, but he also had a staff of clinical psychologists from the University of California at Davis spend two weeks at camp observing the sensory playground activity and reporting on it. If anyone is interested in this report, I will be glad to send you a copy.

When I first started working on the Enchanted Hills program, I sat down and reviewed what had transpired the previous five years. After that review I came up with two new objectives.

The first objective was that we have blind counselors, and this year we had three. They performed well. As a matter of fact, a blind college student from Davis by the name of Mike May was one of the innovative leaders of the program. We had three deaf-blind children during the teen and preteen sessions, and it was apparent that Mike had better communication intercourse with the deaf-blind than any of the other counselors.

The second objective was to open up the camp to more deaf-blind children. For years we have been serving the deaf-blind adult community at camp but not the deaf-blind children. Working with Dr. Blea, with support from EHA, Title VI, Part C, funds for services to the deaf-blind children, we hope to accomplish this objective.

The doors are now open to deaf-blind children. As soon as the recommended program is approved, you will be hearing from us. In the meantime, if any of you are interested in a tour of Enchanted Hills, please let us know. We will do everything we can to facilitate this. I think you would find it interesting and worthwhile. We are proud of its purpose and have good plans for its future. And that future includes deaf-blind children.

Vocational Training Program at the California School for the Blind

Presented by Charles Zemalis
Teacher, California School for the Blind, Berkeley

The Pre-Career Curriculum Guide for Deaf-Blind was prepared by three members of the deaf-blind department faculty, California School for the Blind. The reason for having developed this curriculum guide is the imminent need of the young deaf-blind students now reaching maturity. Statistics published by the Southwestern Region Deaf-Blind Center illustrate that, within the next five years, there will be 52 deaf-blind young adults in addition to those about to be placed into career preparation courses of training. Further computation shows that by 1980 there will 158 deaf-blind people in this classification.

In parts I and II of the guide, all areas of preparation for adult life are considered. This includes personal hygiene, survival shopping, food preparation, housekeeping, and related activities that make the individual helpful and welcome in his living environment no matter what it may be. Social activities are described and include such simple things as courtesy, helpfulness, and activities like planning a birthday party and buying small gifts for others. Uncomplicated card games, charades, and other games are an important part of the program. In the social skills unit, an attempt has been made to illustrate the use of a birthday party to encompass the many factors making up such an event. This unit involves the language of planning, writing invitations, estimating the number of items required, shopping, and estimating cost. The children have to make choices and

buy gifts for friends. At the actual party, acceptable social and group behavior is encouraged. Students serve refreshments, and others lead the singing or attend to the record player and lead the after-lunch dance or games.

Part III of the guide is concerned with shopwork, which is similar to that done in sheltered workshops or in small business organizations doing repetitive tasks. It is not complex handicraft work nor is it product oriented. It is actually intended as preparation for assembly line type work. The teacher who is inclined toward working with his or her hands will find this section easy to follow. It may well be an incentive for the establishment of a stimulated sheltered workshop. Sorting and fitting are important parts of the curriculum. Totally deaf-blind people can do much of this type of work. Of course, we must be alert to the tolerance of individuals and not expect them to be totally happy with repetitive work. If they cannot tolerate one job, change should be provided. In fact, many alternatives should be available.

In the communication unit, the style of language is not standardized for the sake of form; however, each is expressed in the language style of each teacher-writer. It has been maintained that each teacher's experience in presenting a certain unit could best be expressed by the individual who developed and practiced the unit in the classroom. In some instances you will note that full conversations and verbal instructions are quoted. The instructions are given in several media: talking, using the chalkboard, fingerspelling in the air, and, for those who require it, spelling into the hand.

Most of the units in Part III of the guide need no verbalized communication. The sense of touch and hand ability are of prime importance here. It is not necessary to learn terminology, but to learn tasks that sometimes defy verbal description beyond the nominal terms. For the curious child, terminology can be given, if requested.

A survey was made of deaf-blind young adults within the southwestern region to determine what their vocational needs might be. Questionnaires were sent to parents of, and professionals working with, deaf-blind individuals over twelve years of age. At the conclusion of this study, a prediction was made for the future of the people concerned. Less than 15 percent were considered to be candidates for self-sufficiency. The definition of self-sufficiency implies that a deaf-blind individual could hold a full-time job, make his way to and from work alone, manage money to a degree, and learn how to use concerned social agencies and recreational centers in his community. The mobility program described in the guide is intended to help a person become relatively independent through the use of public transportation to and from sheltered workshops, shopping centers, airports, and other meaningful locations.

The second type of trainee we must consider is the partially independent individual. This person would perhaps be able to manage a four-hour job in a sheltered workshop but would need assistance in getting to and from work as well as in many ordinary life activities. The guide serves this group as well as all other classifications of students. If a part of a curriculum cannot be managed

by a student, it is either avoided or the individual is allowed to attempt it and then is gently removed to some activity in which he or she will feel successful. Where feasible, grouping of students according to ability is recommended in order to avoid the possibility of frustration and embarrassment.

A relatively simple mathematics unit has been designed for these two groups. By the time students have reached adulthood and are ready to leave the school environment, it is hoped they will be able to manage small amounts of money for bus fares and single grocery items. The totally deaf-blind person will have greater difficulty in this area and possibly will never master complicated money problems.

A third type of deaf-blind person is the dependent individual who may be helpful in the home. The living skill and social skill units may well be of great profit to this group.

The housekeeping unit provides practice in all areas that may be encountered at home or in an institution. We have the excellent opportunity to use the 40-bed infirmary at the California School for the Blind as a work laboratory. This is a working unit, and individuals are not involved in make-work or unrealistic projects. The trainees may learn tasks as simple as emptying wastebaskets or as complex as operating dishwashers, clothes washers and dryers and vacuum cleaners. Trainees also are responsible for the upkeep of their classrooms and the practice kitchen.

Participants are paid for the work they do in the infirmary. They are taught the relationship of work to wages, and in this area money management is explained. The infirmary experience is also one which gives the participants a feeling of working in a real world atmosphere. They have the opportunity to meet and work with the professional medical staff and the janitorial staff as well. Such a program could be developed for a school close to a hospital or a motel.

A fourth type of deaf-blind person is described in the guide as one being totally dependent. This group is designated as being fit for custodial care. This is a term no one wants to hear. Some have forcefully suggested that the phrase "needs more intensive training" be used. I leave that up to your discretion. This group will have been exposed to all parts of the curriculum, and hopefully the training provided will be carried through to help make the individuals in this class appreciated for their efforts and accomplishments, whatever they may be.

With the variety of units contained in the guide, we hope that some parts will be of use to teachers of the deaf-blind individual. Most important of all, it is hoped that young deaf-blind persons will profit from this effort.

Extended School and Hospital Programs

Presented by Jerry S. Fields
Program Director, Sonoma State Hospital

In the last four years, there has been a tremendous evolution in services for developmentally deprived deaf-blind youth and adults who reside in state hospitals operated by the California State Department of Health. Many clients who have not been served by any community agency, including the school, somehow reach the state hospital system, which is generally viewed by the community and many state agencies as the last resort. This was the predominant philosophy before 1970 and before the implementation of Assembly Bill 225, which brought the regional center concept into reality. Currently, 16 regional centers serve the developmentally disabled persons in California.

Before a person can be admitted to a state hospital, an individualized program, including objectives and proposals for the person's development and care must be worked out. No longer can a judge or an unhappy parent sentence a client to spend his or her life in an institution.

We see ourselves as a vendor to the community. We provide services for X number of months or X number of years based on the objectives and the criteria established for a particular client's development when he or she enters the program. Periodic assessments of the individual's progress are made. We do not just take the client and say, "He's here now, fine." What I am saying is, in effect, we are no longer taking all of your problems and saying, "This is the end of the rope folks, just bring them in; the door closes, and you're finished." However, most of these residents you have given us at one time or another are going to be coming back home to you. They are going to be out there, and they are going to be served somewhere in your community. This is the change you should consider when you see us as an educational or training program, and this is doubly true for those children who were admitted within the last three years.

The actual stay of a client in the deaf-blind program may vary from three to six years. If the goals of the client's educational program can be projected further, then he or she may remain for an extended period of time. For the current practice, however, we are a limited-term facility in which we provide a specific service and the resident returns to his or her home.

One of our major objectives is to minimize the interruption in family affairs. The placement of a child in a state hospital or state facility often permits the regional center, in cooperation with us, to work out family problems that may be critical to the family unit. This may give the state agency the opportunity to act as adviser to the family and local community concerning placement of the individual in a foster home or in an educational or habilitation training service. Our aim is to make the person a contributing member of the family or the community no matter how sheltered the environment is. As a program director, I am not saying to you, "Hey, I'm out here to get your kids."

Our philosophy parallels the mandate issued by the National Deaf-Blind Center and enunciated by Robert Dantona at the American Educators for Visually Handicapped (AEVH) convention. Mr. Dantona declared that we should make every effort to take deaf-blind children out of the state facilities and place them back into the community. I have no difficulty in embracing this concept; however, I do have difficulty in buying the concept that the community can always provide a better service for the children, because frequently it is our effort that begins the children on the road to development and helps them to gain the progress they need before they can benefit from the services you provide in the community. Many of the residents who reach us are in need of skilled nursing care to help them cope with medical problems and, in many cases, to aid them in conquering these problems or at least putting them under control. The "rubellas" that are coming to the state hospitals are generally a lot more medically dehabilitated than those you are getting in the community. Therefore, while they are with us, we hope to come up with some positive medical recommendations that will make it possible for these children to live happy and healthy lives.

The Southwestern Region Deaf-Blind Center operates demonstration programs in four state hospitals. The hospitals that are being served are the following: Pacific in the Los Angeles Area; Fairview in Costa Mesa; Porterville in the San Joaquin Valley; and Sonoma in the San Francisco area.

Each deaf-blind child is seen as unique from both areas, blind and deaf, but needing expertise that calls upon the skills of both areas or specialties.

Programs for the deaf-blind are established either in the program for the deaf or in the program for the blind because there are not sufficient programs for the deaf-blind population to constitute separate program units. These concepts may vary slightly from hospital to hospital.

Each state hospital is divided into nine to 14 programs, and each program has custody and planning responsibilities for approximately 150 residents. We try to keep our numbers down to the point where the program director and the staff can get to know each individual child and to do a specific job of planning. We have done a great deal to individualize on the administrative level as well as on the educational level to really try to bring to bear those services that are necessary for the child.

There are advantages to state hospitals. One of the great things we are able to provide is the 12 month year. I have heard teachers complain, "If only those kids didn't have to go home for the summer, we would have it made." After you have given the children two and a half months to regress, the teacher starts back at least three months behind where he or she was the previous spring. We try to avoid the regression by having our teachers signed on a 12-month contract. The teachers are with us all year except when they take vacation or educational leave. We operate about 195 to 210 days a year.

Another advantage is that theoretically (not practically, as yet) we have a 24-hour residential situation that should give us a high level of continuity in services. A teacher or a teacher assistant is with a child on a 1:2 or 2:3 basis all day, but then the child goes back to a group of six, eight, or ten

children in the evening. The child's world is definitely changed. This is one thing that we are still fighting. This situation is comparable to that in the school district where the child is sent home every night and the teacher hopes that the parents will carry out the plans laid out for the child. I would say, however, we are probably getting about 35 percent more enforcement now than we did previously, and this is significantly higher than the home environment.

We started out two years ago trying to operate with an integrated staff. The teachers and teacher assistants would work side by side with the cottage staff. This had some inherent drawbacks, and, after trying it for a year and a half, we returned to a strict educational day with advisory spillover onto the ward through inservice training and through the planning committee sessions.

The child needs to see different environments. Fortunately, the deaf-blind program was given a house on the grounds. The children are there about six hours a day. Members of the staff use such techniques as massage, sensory motor training, tactile development, discrimination, and total communication. The phonic ear is now being used. All students are equipped with dual hearing aids and with glasses that fit properly.

Since starting the program two years ago, we have graduated several of the children to other programs; only eight of the original group remain. I would say that none of these was capable of active mobility. Five of them were crib cases or were in bed most of the day except for being on the mat for certain exercises. The other three were in semislump positions. We picked them up, and they did not explore because their horizons had not been awakened yet. With one or two exceptions, all of them now walk, and half of them are on their way to being toilet trained. Speech has come slowly, but several can give you very good responses by gestures and signs.

One problem we have had is that when the children are first gotten up and they become alive, they are no longer quiet little heaps of protoplasm that sit or slump all day in a corner. Their personalities begin to grow and they do unfavorable things such as biting others, all in the sequence of growing up. When I go to a meeting, I hear someone say, "Gee, he bit me the other day. What caused him to bite me?" This is quite natural. The child is just becoming alive and alert to the world after 300 or 400 hours of intensive service to gain that two-month increment that we predicted for him or her. Yet there are staff members who visualize the child as always being that sweet little baby in bed and think he or she is going to stay that way. They change, and so does the child, especially if he or she is in an intensive education program.

If you are ever in our area, we will be glad to talk to you and show you around. In order not to violate the rights of students, employees, or residents, visits are restricted to certain days, but if you call ahead we will be glad to see you.

We are here to serve you. Do not view us, however, as a final "dropping-off" place: a place where the child goes when he or she has no place to go. If I leave that with you, I will feel that I have made a dent in your concept of what we are all about.

Resources

Preschool Correspondence Course

Presented by Cheryl Brisco
Project Coordinator, Project Spin-Off, John Tracy Clinic

The John Tracy Clinic has had 30 years of experience in the field of correspondence learning for parents of deaf children. William Blea approached Edgar Lowell, the clinic's director, with a request to coordinate the development of a Correspondence Learning Program for Parents of Preschool Deaf-Blind Children. Funding was provided through the Centers and Services for Deaf-Blind Children, Bureau of Education for the Handicapped, Washington, D.C. The national coordinator for this organization is Robert Dantona.

The purpose of the learning program was to provide: (1) early intervention in the child's training; (2) parent education about deaf-blind children; and (3) a consistent home program whether or not the child is enrolled in a local school program. The correspondence course was not intended to supplant any school program but to enhance it. Children who participate in a local school program still spend the majority of their time at home, and when a formal learning program is implemented at home, structured, meaningful learning can take place constantly.

Through the combined efforts of Virginia Thielman, Sandra Meyer, and Dr. Lowell, a correspondence course for parents of deaf-blind children was written. Seventy families were enrolled on a trial basis for six months to field test the program. At the completion of the trial period, the course was judged to be a valuable tool and worthy of distribution to any interested parents of deaf-blind children. As with all John Tracy Clinic services, this course is sent free of charge to parents. Approximately 165 families are enrolled in the program. Available in both English and Spanish, the correspondence learning program is unique in correspondence education in that it follows a multitrack curriculum and attends to the individual development of each child. It is divided into two major sections: (1) 12 parent information and attitude lessons entitled "You and Your Child"; and (2) 12 learning steps on communication. The packages are sent in sequential order as the parents work through the program.

The second major section of the course is comprised of seven additional learning steps in the areas of gross motor activities, fine motor activities, eating skills, sleeping habits, dressing skills, toilet training, and personal hygiene.

Because each child develops at a different rate of speed, the course is tailored to meet the child's level of development and to progress along with the child. In order for us to determine the child's stage of development, the family fills out a behavioral checklist during the initial exchange between parents and clinic staff. This enables us to create a picture, or behavioral profile, of the child's development by charting the child's functioning level upon enrollment and the child's progress as he or she completes the appropriate learning steps.

By using the behavioral profile and considering the primary concerns expressed by the family, we determine which learning steps the family is ready to receive.

After completing a lesson, the family is required to fill out and mail a standardized report form, which asks for information concerning the completed lesson and other general information about the child, such as medical data and school enrollment. This report enables us to maintain current and fairly complete records on each child's total situation. When a parent's report is received, the clinic's consultant for the deaf-blind, Sandra Meyer, responds with a personal letter to the family, speaking of individual problems, progress, and incidents relative to each child. She provides encouragement and support to the parents. The letter is usually sent with the next sequence of parent attitude and communication lessons, as well as the next appropriate learning step(s); however, parents may report on a lesson and choose not to receive the next sequence, but rather continue working on the same lesson. In this case, the personal letter to the parents would be a concentrated effort to provide concrete, specific suggestions on how to successfully complete the lesson.

Provided intermittently throughout the learning program are listings of other resources entitled "Other Sources of Help." The program also includes a special section on "Toys and Play Equipment" and a guide to activities that encourage communication entitled "Experiences for Building Language."

Further information about the learning program and applications for enrollment can be obtained by writing to:

John Tracy Clinic
806 West Adams Boulevard
Los Angeles, CA 90007

The package is also available in bound form to professionals at a cost of $9.50.

Handbook for Residential Personnel: Services to Deaf-Blind Children

Presented by Carole Rouin
Writer-Editor, John Tracy Clinic

The John Tracy Clinic works primarily with parents of deaf children; however, following the rubella epidemic of 1964-65 and the concomitant increase in multihandicapped deaf children, the clinic began also to work with parents of deaf and blind children. Learning Steps: A Handbook for Persons Working with Deaf-Blind Children in Residential Settings is an outgrowth of that parental involvement.

It has been the philosophy of the clinic that a child's parents are his or her first and natural teachers. Parents help a child learn during the crucial years of his or her early development; however, for a number of reasons, children,

especially handicapped children, may not live at home. When these children live in a residential setting, the people who care for them become, in effect, their substitute parents. As parenting figures, these people can help the children learn the same developmental skills that the children would have been learning from their parents at home. In conjunction with building a basic system of communication, these people can help the children learn self-care skills and practice their everyday living skills.

Many of these skills are taught in special classroom programs; however, a learning day of two, five, or even eight hours is not enough. The physical handicaps of a deaf-blind child are also learning handicaps. Deaf-blind children need a 24-hour learning program for maximum development of skills. This means that these skills must be taught and practiced in the child's living situation as well as in the classroom.

Child-care workers in a residential setting have a difficult job. Their work is physically and psychologically demanding. They want help and support in what they are already doing. How can we expect them to do even more? The answer is: They do not need to do more.

The fact is that you are already doing everything that needs to be done. You are dressing, feeding, washing, toileting, and loving these children. This handbook will only suggest ways that you can make learning activities out of these everyday tasks. Developing a learning program for self-care skills does not require special staffing or a change in routine. It only requires that you look at what you are doing in a new way. You are dressing these children, feeding them, and caring for them constantly. Why not do these things in a way that will allow these children to learn to care for themselves? The more that deaf-blind children can do independently, the easier it will be for the child-care worker. Learning Steps will suggest ways that you can help these children learn to do many things for themselves. With your help and your care, deaf-blind children can become more independent in their everyday living skills.

But the child-care workers cannot do this alone. They need information. They need training. They need to know how to carry on these activities when the children return to the ward.

With the increased growth of total educational programs, more and more residential settings are developing programs that involve both teaching and residential staff, in order to build consistent programming for the children involved. This becomes difficult as activities may take place on different shifts, in different buildings and, due to personnel turnover, with different people.

Learning Steps is designed to ease these difficulties by providing a communication link between the classroom and the child's living setting. It provides the information needed to make similar activities available to both so that more deaf-blind children will benefit from a total and consistent 24-hour educational program.

The activities presented in Learning Steps were developed and tested for use by parents. Each step has been adapted for use in a residential setting.

The emphasis is on promoting the independence in daily living skills that will allow the children to function appropriately in any living setting.

Learning Steps has been designed for use as a handbook. It is easy to read, and each activity is illustrated. Signs are included with every step. Learning Steps is based on a recognized sequence of development, and each skill is presented separately. This makes it possible for the child to enter at any level in any area. Where the individual begins depends upon his or her needs and the child's needs.

For parents, we often suggest a set routine to follow in developing skills. Deaf-blind children need a structured setting in which to learn, and this is sometimes difficult at home. But in a residential facility you already have a structure to use and a routine to follow. This benefits the child who has learning difficulties. The suggested activities need not supplant any that you already are using. They should only optimize your use of the learning structure that is already established.

Communication is an integral part of each activity and should be used constantly and consistently. There are no prerequisites to communication. Communication develops as the individual develops. Children will not learn signs after they can walk, after they are toilet trained, or after anything. They can learn to communicate as they learn to walk, as they learn toilet control, or as they participate in the life around them. All they need is constant exposure and consistent practice.

Because of the visual and hearing handicaps of these children, language development in Learning Steps is based on the use of total communication. You speak, you sign, and you help the child sign. You do this all the time with every activity. Tell the child what you are doing with and for him or her. To make this easier, signs are illustrated with every activity; use them, but not alone. Talk, sign, and help the child sign. Communicate with the child in every possible way at every possible time.

Communication is emphasized in the development of every skill that Learning Steps covers. This includes motor development, eating, dressing, toileting, personal hygiene, and leisure time.

Motor development begins with developing a child's sense of awareness. Children need to become aware of themselves as persons and of their bodies as physical objects. They need to become aware of you and of other people. They must accept being handled and learn how to handle themselves. From this sense of awareness, motor development then progresses into controlling the head, lifting the chest, turning the neck, and rolling over. It continues on to sitting, crawling, standing, turning, squatting, and going up and down stairs.

Eating skills begin by weaning the child from the bottle. Activities are suggested to help the child eat from a spoon, drink from a cup, and learn to chew. Skills development then progresses to the independent use of the spoon and fork and the independent use of a knife to cut and spread. Suggestions are given to help the child learn to pour from a pitcher, serve food, wash dishes, and put them

away. Also suggested are possible menus and foods the child can learn to prepare. These are often things that we take for granted and things we assume deaf-blind children can never do. But many can. Step by step, slowly, deaf-blind children can learn to do many things for themselves. It takes time, patience, and persistence. Most of all, it takes your determination to see it happen.

Dressing covers the skills involved in taking clothing off and putting it on again. This includes lifting things over the head; getting arms in and out of sleeves; handling zippers, buttons, and buckles; and tying shoes. The goal again is to help the child become as independent as possible.

The section on toilet training suggests ways of scheduling the child, using training pants, pulling them down, pulling them up, and putting on clean ones when it didn't work. There are also suggestions for teaching the children to use toilet paper, to flush the toilet, and to wash their hands. Again, we emphasize building communication in each activity by associating the symbolic language through word and sign with the physical action.

Personal hygiene offers suggestions for developing the child's ability to care for the body. This includes caring for hair, teeth, and nails as well as bathing. Knowing how to be clean and socially presentable are important skills. It is not enough for these children to be able to walk or be toilet trained. There are other social and personal skills they must learn before they will be able to take part in many community programs, vocational training, or even some classroom and camp activities.

Socialization skills are also developed through recreation. This section includes ideas and suggestions for leisure time activities, recognizing that you may have the maximum number of children but minimum staff, funds, and material with which to work. Deaf-blind children will not learn to use this leisure time without your help. You are going to have to encourage them, stimulate them, and teach them to play. They will learn slowly. Like all children, deaf-blind children will play first with things and with objects around them before they begin to play with other children. Gradually, they may begin to play near other children and, finally, they may begin to play with one another.

Dressing, feeding, loving, and caring for deaf-blind children are not routine activities. People who work with these children should know and feel that everything they do with and for these children has a purpose. They are working toward very real goals with every child. Having a plan and a purpose for what they are doing is going to make the work they do more satisfying. The more satisfying their job becomes, the more willing they are to stay and do it.

Attitudes and feelings of parents have always been major factors in determining how parents care for their children, and this is true for substitute parents as well. How they feel about themselves and about the children they are caring for is important. Child-care workers must realize that they are an essential part of the life of each child and an integral part of the child's total educational program. What they are doing with the child and how they feel about what they are doing make a difference in what the child is going to learn.

Learning Steps can be used by different people, in different ways, and in different settings. The publication was designed for use not only in hospitals and institutions, but wherever deaf-blind children live. This includes foster homes, nursing homes, satellite homes, camps, and respite care facilities. The handbook may also prove useful for inservice training or simply as an additional resource offering encouragement and help when you want another idea on how to do something that is not working for you at a given time. Whatever your position, if you work with deaf-blind children in a residential setting, Learning Steps may have something to offer you and the children you care for.

Information and Resource Packet

Presented by Marilyn E. Dryden
Research Specialist, California State Department of Education

In October, 1973, a proposal for a grant was written by Carl Kirchner and Don Keeney, who at that time were serving as state consultants for the multihandicapped. Funds requested in the proposal were to be used for the preparation of informational materials geared for parents, teachers, aides, and administrators of multihandicapped deaf-blind children. The grant was approved, and funding was provided by the State Department of Education through its program for multihandicapped persons. Because this grant was originally written to serve parents as well as professionals, Mr. Kirchner felt it would be a good idea to seek a parent to put the packet together, and I was asked to be that parent.

Before I continue, I would like to tell you a little about myself. I have an elementary and secondary teaching credential. Much more important, however, I am the parent of a deaf-blind child. My daughter is six years old and is presently enrolled in the Pasadena Unified School District at San Rafael Primary School. Her education began at the John Tracy Clinic. My husband and I were part of the clinic's demonstration home program, and we received the correspondence course, John Tracy Clinic Correspondence Learning Program for Parents of Preschool Deaf-Blind Children. From there our daughter went into the local school district, Glendale Unified School District, where she was placed in a class for the deaf. She remained in that program for one year. As many other parents of multihandicapped children have discovered, I am sure, this class simply was not meeting her needs. With a referral from the school district, we spent a week at the Diagnostic School for Neurologically Handicapped Children in Los Angeles and learned of her need for placement in a deaf-blind program. She next entered a class in Alhambra. Lonna Anderson was her first teacher, and our daughter remained in that program for one year, at which time a district closer to our home applied for and received funding for a deaf-blind class. She has been in that program in Pasadena for three years.

We, as a family, have participated in the Parents of the Handicapped, an adult education class offered in the Alhambra City Elementary School District. For three years we have participated on parent panels for the Leadership Training Program at California State University, Northridge. Recently, we were part of

the pilot program for the deaf-blind correspondence course presented by the John Tracy Clinic. We also participated in the TABS baby-sitter project, which is funded by the Southwestern Region Deaf-Blind Center. We have tried to be involved with our child and her education. Having both the time necessary to work on the project and, more important, the desire to see it become a reality, I accepted the job and became the "research specialist" for the information packet.

The object of the project is to develop resource packets for parents, teachers, aides, and administrators of multihandicapped deaf-blind children. The packets will include services available to these children throughout the state. These packets should include the following:

1. Bibliographical material, which will include a comprehensive, up-to-date, annotated listing of all available literature concerning multihandicapped deaf-blind persons

2. Teaching guides, which will encompass successful approaches to teaching multihandicapped deaf-blind persons

3. Instructional materials, which will include tried-and-tested materials (Materials will be explained and justified, and details concerning manufacture and procurement will be given.)

4. Ancillary services, which will include a comprehensive listing of service agencies such as regional centers, crippled children's services, and audiological and ophthalmological services that are generally available as well as the procedures necessary to initiate their services

5. Annotated media guide, which will list movies, videotapes, and other materials related to multihandicapped deaf-blind individuals

6. Measurement instruments and strategies, which will be appropriate to multihandicapped deaf-blind children and youth

The task of providing the preceding materials may be impossible in the time allowed. I know that there is a tremendous need for these materials; therefore, I enthusiastically accept the challenge. Regardless of what we are able to accomplish, be it one section or all six, I know it will be a step in the right direction.

A task force of resource consultants will be working with me. I hope some of them will be from your area, bringing with them information about your district. These consultants are Cathy Groves and Karen Campbell from the San Mateo area, Bob Howell representing Los Angeles County, Mary Jo Sweeney from San Bernardino County, and Anne McComiskey from San Diego County. With the help of these people, I am sure I will find services and resources that should be included in the packet. I would like to visit as many programs as possible in the next four months, and I would welcome any opportunities to brainstorm with parent groups and professionals for their input. Written inquiries or information you wish to share should be sent to:

Marilyn E. Dryden
1036 Davis Avenue
Glendale, CA 91201

Project Search

Presented by Virginia McDonald
Guidance Coordinator
Office of the San Diego County Superintendent of Schools

I would like to share with you some of the work being done in San Diego County to develop an identification system for handicapped children in the community. This project, called SEARCH, is an identification system. It is not an assessment system; it is simply a method we are using to systematically collect information on handicapped persons in our community. We are doing this with an automated, computerized system. The work was begun in 1969 under an ESEA, Title III, planning grant. A plan was developed to establish a data bank to which agencies could contribute the names of persons identified as handicapped. The office of the county superintendent of schools would serve as the coordinating agency for private and public schools and community agencies. The Regional Data Processing Center developed the computer programs and processed summary management reports.

Some of you may be unfamiliar with the term "data bank" or "data base." This term means many different things to different people. To some people, a data base is a list, for example, of test scores or it may be a means of keeping attendance. To other people, a data base conveys the image of a computerized mailing list from which you cannot get free. This is a very important thing that you have to deal with when you are working with the community and when you try to prevail upon agencies to participate in an automated computerized information system.

The way we envisioned that Project SEARCH would work was that the information, filled in on a registration form by teachers or agency personnel, would be sent to the project coordinator and be processed in the data processing section in the county superintendent's office. The reports would be returned to the agencies and the participating school districts.

One of the very important things that we were trying to take into consideration when we developed the system was to meet the mandated state reporting requirements. These are known as the D-1 and D-2 reports. Each year, the county superintendent of schools compiles information on the children in the programs and the children who are not being served in the community. Another need was to provide management summary data. When the system was originally conceptualized, there were going to be lists of children with their handicapping condition. We discovered that this was not going to be a very suitable way of collecting data. Although agencies were quite interested in the establishment of a centralized system in the community, they were very reluctant to release information on the children they were serving. Therefore, we decided to collect only summary-type data.

One of the first things that we did was to organize a task force of special educators, physicians, speech therapists, and representatives from agencies. Their task was to define what information was needed. Getting people to agree on what

information we really needed to know was a major task. I guess that I can say we really never did agree. Every educator and each agency had different information needs. Ultimately, someone had to make a decision about what we were going to have on the registration blank. This decision was made rather unilaterally after reviewing what was discussed at the various task force meetings.

Some of you may be wondering why we are collecting information on handicapped children in our community. Federal and state actions are two of the reasons that we have become involved in identification. Reports from the Department of Health, Education, and Welfare indicate that 60 percent of the handicapped children are not receiving special education. About one-million handicapped children are excluded from any public education. Eighty percent of the gifted children are not receiving the education that they need. Thousands of children are warehoused inappropriately in institutions. In addition, the California Master Plan for Special Education has as its philosophical concept that all exceptional individuals are to be sought out and provided an appropriate education. In accordance with the Master Plan, the State Department of Education is to cooperate with other agencies to meet the needs of exceptional children; however, the special help is to be provided while maintaining maximum integration of these children with the regular school population.

Our community felt that the implications of a data bank were several. We saw potential in the coordination of activities and services to be delivered to the children. One of the goals was to help school districts in planning articulation between elementary schools and secondary schools. We hoped to improve the services to children in the community. Also, we hoped that by looking at our population we would be able to stimulate new ideas for services to children and their parents. We also knew that whenever a project requires additional funding, one of the primary concerns in the initial stages is a needs assessment; i.e., who is to be included in the population of handicapped people in the community.

In the first year Project SEARCH involved only five school districts and one private school. The project has grown, and it now represents approximately 50 percent of the special education enrollment in San Diego County. The largest school district, San Diego City Unified, is currently not represented in the data base, but hopefully it will soon become a part of the data base.

The total school enrollment for San Diego County is a little over 300,000 pupils. The office of the San Diego County Superintendent of Schools does not operate special education programs for children with the exception of three classes for educable mentally retarded children. The superintendent's office coordinates programs among the school districts, and school districts are encouraged to operate their own programs. San Diego County serves approximately 30,000 children in special education programs (including programs for the gifted). Therefore, about 10 percent of the pupils are in special programs. The categorical programs, such as those for the deaf, blind, mentally retarded, and educationally handicapped, include about 10,000 children in the county. This would be three percent of the population.

In Project SEARCH we are attempting to monitor all children who are currently enrolled in special education programs and at the same time identify those children who are preschool age and have not been served by the schools.

Before a federal or state agency will assist in the process of identification, the community should be able to provide some data on those children who are already in special programs. Apparently, a constant need exists in the community for these data that were not available in a systematic way before Project SEARCH.

In attempting to initiate a data bank in the community, some of the questions that have to be raised and answered are the following: Will a child census be conducted on a one-time basis, or is it to be done annually? What method will be used to update a data base? Who is going to maintain the data base? It is one thing to do a one-time identification and not have to worry about maintenance, but if the data base is to be maintained, who is going to take responsibility for doing that? Should the information be collected by parents and volunteers, or should it be collected only from organized bodies or agencies that have diagnosticians on their staffs? This makes a great deal of difference in the type of data obtained. What kind of processing services are available in the community? Do you really need data processing for the size of your community, or can you do identification efficiently in a manual way? What other efforts are being made around the country to collect data and establish a data system?

The preceding questions represent only some of the factors that need to be considered before such a project is attempted. It has been my experience that you do not do something like this overnight. We were operating with EHA, Title VI, Part B, funds, and we were operating on a year-to-year basis when we first started the project. A time line of 18 months does not give one a chance to set up and get going all in one year's time. At least 18 months should be allowed for a computer program to become operational.

One of the best ways to save time and energy is to find out what other communities are doing. In San Diego County, a state dissemination project has funds and personnel available to assist other communities in getting started in developing identification projects. Other existing projects that involve identification in other states include: Project CHILD FIND in New Jersey; Project COMPILE in Pennsylvania; and Project CHILD, a data system for the handicapped, in Maryland.

Other questions are concerned with staffing. Who would coordinate such a project? Is a qualified person available in the community, or must you go outside and look for a new candidate? Who should serve on a task force in your community? What types of data are already being collected in the community? Some questions are philosophical: Who should operate a data base, and who should really be responsible for an identification system in the community? The Master Plan certainly places some of the responsibility on the schools because it says that the schools will seek out and identify children. This is a responsibility that until now has been superficially dealt with in most communities.

If a community decides to proceed with a data base project, it must determine how much data are needed to identify a child. It has been my experience that you need to have a minimum amount of data. The more unnecessary data that you collect, the more vulnerable you become on issues of confidentiality and invasion of privacy. You need to be very sure of what kind of information you need and how you are going to use the information. We have tried in Project SEARCH to use only summary data as public data. All names and identifying information about any child are returned to the contributing agency or school district.

Another thing that keeps recurring is agency resistance. Most agencies will say that they are interested in identification to develop some sort of centralized system in the community because they need to know how many handicapped children there are in the community. But when it comes to gathering the information there are many excuses that agencies use. Some of the excuses that I have run into are the following: It is against agency policy to give out information on clients. There is concern about territorial imperative. For what purpose do the schools want this information? What are they planning to do? Are they going to take over our preschool program? What is going on?

Human fear of technology is a constant problem. People have very odd notions about what a computer will do, what kind of bad things it will do, and how it will suddenly print lists of children and circulate them all over the community. Administrative fears and sometimes administrative procedures in an agency are such that personnel would prefer not to have anybody coming around asking for records. These are things that have to be dealt with in a public relations way. And, of course, there is always the money problem. Where do you find the funds to carry on a project of this sort? We have been very fortunate because we had EHA, Title VI, Part B, funds to support the project.

A long time is needed to bring a community together where people are willing enough and trusting enough to share information concerning their handicapped population. It takes constant cultivation. We have been working at it for four years, and we are just beginning to succeed. We have worked with the regional center, churches, and the county's medical groups. We are constantly trying to make public information available so that people will know that they can refer handicapped children to the schools. This is becoming particularly important because some programs include three-year-old children and many parents are not aware that their children are eligible for programs if they are younger than age five.

One of the most exciting activities has been what we call the SEARCH 0-6 project. With the assistance of the Southwestern Region Deaf-Blind Center, we began an outreach program to locate preschool age children. This pilot project was conducted in the northern part of San Diego County. We changed our method of attack. We developed a brochure that could be placed in doctor's offices, waiting rooms, and hospitals. Agency intake workers can hand them to parents and ask for their participation in the registration process. Bilingual posters are placed throughout the community.

The area in which we began the pilot outreach program has a population of about 75,000. When take-home flyers were distributed to children through the schools, 14 referrals were received. This gave us some idea of the potential of flyers. An agency brochure and a school take-home flyer were prepared. The only difference between the two was that the school take-home flyer had deadline dates for response. The agency flyer can be used year-round and does not have time limits.

Through Project SEARCH we expect to be able to determine who the handicapped children are in the community, where they are, and how we can help meet their needs. Our job is to bring children and education together in the community.

We are involved in a parent education program. If your school district is interested in conducting an identification project, I cannot stress strongly enough that the identification process should become everybody's project. It is up to

teachers to pass on information; it is up to the administrators to make contacts with agencies. It is not the kind of thing one person can do alone.

We have published a booklet of sample reports that can be distributed to agencies giving data on program enrollment in the school districts in the county and information on the agencies that are participating in the data bank. There is also a pamphlet containing answers to common questions that are asked about a data base. It describes what the system can do and what it cannot do. If you would like additional information, I will send you copies of our brochures and posters.

Educational Assessment of Deaf-Blind Children

Presented by Laurice S. Jenkins
Project Director, California School for the Blind, Berkeley

The Educational Assessment Center for Deaf-Blind Children, which is located in Berkeley at the California School for the Blind, is funded by the Southwestern Region Deaf-Blind Center.

At the assessment center each child receives an in-depth educational evaluation, including examinations, observations, and tests in the functional areas that relate directly to education. These are ophthalmological, audiological, and psychological tests. Basically, we try to ascertain the best methods and procedures to use in working with a child, and, insofar as possible, answer questions of teachers, parents, and others who are involved with the child. When requested to do so, we also make general recommendations for placement; that is, the type and level of placement. We never specify a particular program, however.

The assessment procedure begins when a referral on a child is received from the Southwestern Region Deaf-Blind Center. We immediately send the parents or parent surrogates an application, permission slips, and release-of-information forms together with a cover letter giving general information about the program. When the forms are returned to us, we contact the parents by phone to schedule an appointment, discuss transportation, and, of course, answer any questions the parents may have.

The child usually is enrolled at the assessment center on a Monday. He or she may arrive either in the morning or the previous afternoon or evening. A parent or surrogate parent is normally required to remain with the child in the assessment center parent's suite, preferably all of the child's first week; however, if it is impossible for anyone to stay, an exception can be made. We feel it is important for a parent to stay, both to furnish data and obtain information on working with the child, and to help the child adjust to the new situation. There is, incidentally, no charge to the parent for lodgings or meals.

Early in the child's enrollment period, he or she will be seen by the school ophthalmologist. If the child has not recently had an audiological examination, he or she will be taken to a nearby clinic for this testing. After the child has had a chance to settle down somewhat, usually in the third week of

evaluation, the psychologist will begin to observe the child and conduct informal and formal tests, as appropriate. The basic program, however, involves highly individualized work with the child in the classroom and dormitory.

At the conclusion of the evaluation, a staff conference is held at the assessment center. The professionals involved with the child, such as teachers, psychologists, social workers, and public health nurses, are invited to this conference. Within a few weeks of the child's departure, a comprehensive final report is issued and copies are sent to schools and agencies involved. A copy of the educational portion of the report is also sent to the parents.

Initially, we tried to follow up on each child informally, but the results were haphazard and thus incomplete. Now we are sending parents and professionals a short questionnaire. We have been receiving some very interesting and helpful responses.

Incidentally (no, not incidentally, but rather fundamentally), if any of you have or are associated with a child you would like to have evaluated, the best way to request referral of the child to the Educational Assessment Center is to contact Dr. Blea's office in Sacramento directly. Individuals have sometimes contacted the center or the California School for the Blind, and we have passed on their request to the Southwestern Region Deaf-Blind Center; however, a request to the Southwestern Region Deaf-Blind Center is more direct.

Perhaps the most common question we are asked is what are the requirements for enrolling a child; i.e., what are the minimum standards a child must meet in regard to age and function. Our primary requirement is that a child be ambulatory--at least able to walk while holding an adult's hand or a rail for balance. The child must be capable of being taken from one building to another. Although the center does not have minimum or maximum age limits, a child must be big enough to cope with the other children in the dormitory, yet not so large as to pose a problem or danger to them. Exceptions have been made, both in regard to ambulation and age, by taking a child for a short-term enrollment when a parent or other adult could stay and provide care on a one-to-one basis.

Rather than stress the negative, I probably should say that the center will accept children who are not toilet trained, who require help with feeding, who receive regular medication, and who possess severe emotional and behavioral problems--hopefully, not all in the same child. As one might expect, although we have had children with a wide range of abilities and functional levels, they have averaged lower and have been seen as generally more difficult than children who are regularly enrolled in the school.

During the first year, most of the children came from the California School for the Blind and Sonoma State Hospital; a few came from other areas, and one came from another state. During the second year, there were far fewer from the California School for the Blind and the state hospital; many more were from other areas, particularly southern California, and from other states. During the third year, most of the children came from outside of our area, and some came from fairly remote areas of California, as well as southern California, Nevada, and Arizona. Soon we expect to schedule children from Hawaii.

The center has also evaluated children who were true deaf-blind children. They came from a variety of programs including, in addition to deaf-blind, the multihandicapped, mentally retarded, mentally handicapped blind, mentally handicapped deaf, mentally handicapped "other," educationally handicapped, and cerebral palsied. In smaller districts programs may be quite limited, and a deaf-blind child may well be attending a program for the retarded, for the multihandicapped, or for the so-called "normal" deaf or blind.

We have been improving our services at the Educational Assessment Center, trying to maintain flexibility in our general operation and to adjust not only our program but our schedules and routines to meet the needs of parents, schools, agencies, and above all, the children themselves. We maintain a very open operation, and we welcome visitors whenever the program is in session.

Relevance of Sensory Motor Activities and Perceptual Training in Intellectual Development

Presented by Cathy Groves
Supervisor, Deaf-Blind Program
Child Study Center, University of Oklahoma

During the last several years, I have been concerned about the deficiencies or perhaps the difficulties the deaf-blind child experiences in organizing the sensory information that enables the child to surmount his or her sensory end-organ barriers. At this point in my experience with deaf-blind children, it is my feeling that the key problem for the deaf-blind child is the disorder of sensory input integration and perceptual functioning that tends to interfere with further cognitive and intellectual development in the deaf-blind child, rather than the damage to the sensory end-organs.

It might be well to define the sensory avenues we have available for input before we discuss how we should organize that input. Therefore, I will delineate the sensory avenues we have working for us. I will present these sensory systems in a hierarchical order. This hierarchy of perceptual development has been described by A. Jean Ayres in her paper, "Influence of the Vestibular System on the Auditory and Visual System."

Vestibular Sensory System

Through the vestibular sensory system the individual receives impressions of the body's position in space in relation to gravity and also the direction of the body's movement. Dr. Ayres postulates that not only does the vestibular sensory system serve this very important basic and primitive informative function, but it also serves as the organizer and the background for all other incoming sensory input that the child receives. Her thesis, which she presents convincingly, is that, with increased "antigravity" experience and integration of the input through the vestibular sensory system, there will be increased effectiveness upon the way in which the child receives and organizes auditory and visual information.

Olfactory and Gustatory Sensory Systems

The research is not clear on where the olfactory and gustatory sensory systems may fit into the hierarchy of perceptual development; however, it is postulated that these are very early developing and primitive sensory systems. For a working definition, we would define the gustatory sensory system as the sense of taste or the sensory channel through which we receive taste information. The olfactory sensory system is the system through which we commonly experience smell.

Tactile Sensory System

The tactile sensory system is the sensory system through which we experience touch. As postulated by Dr. Ayres, the vestibular and tactile systems are the basic sensory systems which provide foundations for the child's use of other sensory input for meaning.

Kinesthetic Sensory System

Kinesthesis can be defined as movement sensation and the memory of that movement. The relationship of kinesthetic sensory motor experience to vestibular sensation and tactile sensation is very close. It would be difficult to experience movement without vestibular sensation, especially if it were a total, gross kind of body movement. Oftentimes in our sensory motor activities, especially with deaf-blind children, we combine kinesthetic sensory motor experience with tactile sensory motor experience. If the body is experiencing its resistance to gravity, the vestibular sensory system is activated.

Stereognostic Sensory Information

Stereognosis may be defined as the memory of the three-dimensional shape and form. Again, we do not gather stereognostic information by a single sensory input or through a single sensory system. It requires touch, oftentimes movement, which we might call kinesthetic input, and, if the object is large and the child is small, it would require the child's total body movement over and around the object to become familiar with these dimensions and the form of the object. This is especially significant for the visually impaired or blind child.

Baric and Thermic Sensory Input

Baric sensory information can be defined as the sensation of weight. Thermic sensory information is the sensation of temperature. We rarely experience these sensations in isolation. For example, one can place two pails of sand in each of the hands of a deaf-blind child. This experience will provide sensory input in regard to weight. The child will experience the feel of the cold metal handles of the pail and, more than likely, because sand is so heavy, the child will be called upon to adjust his body's position in space to maintain his balance; hence the vestibular sensory system will be activated.

Visual Sensory System

The visual sensory system is the sensory channel through which visual information is received; it is, basically, the sense of sight. Again, one must distinguish between visual acuity, awareness, and perception. Each visual image has a top and bottom, a right and left, and is usually dependent for its meaning upon spatial arrangement and sequence. The child may have very adequate visual acuity but may not have adequate visual perception. The eye, which is the end-organ, may be able to "carry" the graphic print of a word (c-a-t); however, by the time the sensory information travels to the area of the brain where the visual sensory information is organized, the visual pattern may become mixed. The child may perceptually "see" the word a-t-c rather that c-a-t. The reverse situation is also possible. The child with low visual acuity may have difficulty getting the sensory information through the end-organ. He or she may be able to retain the spatial sequence of the word and recognize it, though the visual image of c-a-t may be blurred.

Auditory Sensory System

The auditory sensory system is the sensory channel through which we experience audition, the sensation of sound, and the qualities of sound: the pitch or frequency and the intensity or loudness. The sensory channel must carry the sound information in its spatial and temporal form; however, the recognition of the sequence of the sound pattern carried is very much a perceptual function rather than a sensory function. Hence, it becomes an auditory perception function versus a sensory or acuity function. This distinction is very important. It is the distinction between sensation and acuity, and between awareness and perception.

Development of a Perceptual System for the Deaf-Blind

Now that we have reviewed the sensory systems, let us look at the aspects and process of moving from sensory reception to perceptual functioning. The child has very few unisensory experiences. In all sensory experiences, or in the majority of them, the body in motion is involved, or the hands in motion are involved. For example, in a rhythm exercise in which we were asking the child to listen to a temporally arranged sound pattern and to repeat to us that sound stimulus in the pattern, the child would not be experiencing audition only. If the child were seated upright, for example, he would have the incoming sensory input of his body's position in space while he was listening with his ears to the sound pattern that was being presented. In addition, he would be experiencing the movement of his body that was activated to reproduce the sound pattern. Perhaps this overstates the point that there are very few unisensory motor experiences. I will now discuss the process of sensory input and what happens to it after it is received. Energy impinges on an end-organ. This end-organ may be the eye, ear, or finger for touch. The energy, or the sensory input, then travels along those pathways that lead to the reception area of the brain. The child is still not at a perceptual level at this point. This is the level of sensation-awareness; some sensory input has registered. The sensory input then travels to the association area of the brain where it is coded and processed. This is a critical area of perceptual functioning. The sensory input pattern (the sequence temporal or spatial) must be registered. This sensory information is then integrated and has the chance to be associated with meaning, a meaning derived from past experiences with that same sort of

sensory input or a meaning attributed to a novel sensory experience. At this point the child has a response, which may be either overt or covert. As teachers, we depend upon an overt response to notify us of the child's association of meaning with the sensory motor experience; however, we should be reminded that the child's response to this input can be covert and not observable.

Here I will review behaviorally the process of the sensory input sojourn described earlier. Behavioral arousal would be the reaction after the sensory input. At the reception level we would expect the child to act in a manner as though he or she were aware of the sensory input. Oftentimes the deaf-blind child does not act "aware." This may not be due to lack of acuity or sensitivity of the sense end-organ or of the reception area of the brain. It may, in fact, be a perceptual disorder. How can this be? Take, for example, the deaf-blind person who appears to be "too deaf" to be deaf. If sensory input does not make sense to us, or if we cannot get it organized, then we have the option of tuning that input out. Because it does not make sense to us, or because we have not learned the manner in which we can organize it and consequently associate it for meaning, it appears to us as noise or noninformative data. Before the child can be expected to perform the more sophisticated perceptual functionings of discrimination, matching, sequencing, grouping and classifying, he or she must first be able to attend to the sensory input. Under the very broad heading of discrimination, I would like to mention several aspects of discrimination tasks we are asking the child to do and classify them as to what we are asking of the child organizationally and perceptually. The areas that I might put under perceptual discrimination would be as follows:

1. Matching could be one area; for example, contrasting two qualities, like sphereness and flatness, and asking the child to match one to another.

2. Within the contrast, we could add a compromise of the two contrasting qualities; for example, if on the left side we have a sphere and on the right side we have a flat circle, then the additional object would be a mixture of the two and it would be a somewhat flat sphere. In other words, the task we are asking the child to absorb is gradation.

3. Another example might involve working with the two contrasts of a large sphere and a small sphere. The discrimination task we might ask the child to act on would be to take spheres from a container, sorting the large spheres into one shoe box and the small spheres into another shoe box. We then would introduce a medium-sized sphere. We would return all the spheres to the container and introduce a third shoe box in which the medium-sized spheres would be placed. This would be the same sort of activity as sorting three varieties of different shapes of nuts into categories of shapes although they all belong to one large general category.

4. We might then arrange a pattern. The nuts could be used as an example. We would place the walnut to the left of the child's midline, the pecan in the middle, and the peanut to the right of the child's midline. We would then ask the child to sort the collection of nuts into these three categories. A next step might be to place in front of the child the walnut, the pecan, and the peanut. We would ask the child to look

> at them, feel them, smell them, and explore their dimensions. Then we would ask the child to again touch them from left to right in their sequence and replicate the pattern that had originally been there. What are we asking from the child perceptually? We are asking the child to integrate and organize his or her sensory impressions from left to right in regard to touch, vision, and stereognostic input; to retain those sensory impressions in a sequence to keep them in his memory; and to replicate or motor-encode the pattern. We have tapped two important functions of the child's perceptual system: memory and sequence. Almost all sensory input is dependent on its spatial and temporal arrangements for meaning. These two aspects of perceptual functioning, memory and sequence, are crucial to language development. They are crucial to developing the types of visual perceptual skills that allow the child to be able to handle symbols, especially graphic symbols, and, consequently, to read.

The exercises involving the three kinds of nuts would be a very basic type of sensory motor activity that would be preparation for the visual memory and visual sequencing types of skills that the child subsequently will need to be able to absorb or handle the visual symbols involved in reading. We often forget that there are many different antecedent and preverbal types of experiences that are essential to the child before he or she can develop further cognitively, intellectually, and/or academically.

I would like to insert the idea of "figure-ground" as an aspect of perceptual functioning. It might be considered that aspect of perception that facilitates our paying attention to the foreground stimulus and being able to pull it from the background. The activities that were described under sorting would be figure-ground sensory motor activities. Figure-ground interruptions affect the child's ability to pay attention to what we, as adults and teachers, think deserves the child's main attention. The figure-ground type of perceptual problem is the difficulty the child has in sorting the figure stimulus from the background stimulus in order to pay attention to it. Again, this type of ability is essential to intellectual and conceptual development. Unless we have good filing systems in our heads to file experiences that are similar and different into categories and subcategories, then we become bound to the immediate experience for information with figure-ground perceptual interruptions. We are not able to sort the experiences into categories for labeling and consequent meaning.

Two other perceptual functions should be mentioned. These are synthesis and analysis. Synthesis may be described as the putting together of parts into wholes when they are not presented to us this way initially. An auditory type of experience of synthesis might be when we present the child with the following task: What am I saying? C-a-t (separated temporally). We would wait for the child to see if he can synthesize what we have said with temporal separation into a whole. This same task could be done by using the manual alphabet, separating in space the "c," the "a," and the "t." The ability to synthesize, or to close, is a perceptual function and again influences higher levels of cognitive functioning. Analysis is a more sophisticated type of perceptual functioning that requires the person to take from the whole and analyze the whole into parts. It is taking the whole word "cat" and being able to represent it in its parts either by saying c-a-t or by spelling the individual phonemes/letters of the whole word.

The types of activities that involve synthesis and analysis must be done on a sensory motor level before they can ever be considered or presented to the child on a symbolic level. The child needs much experience in taking things apart in various ways as well as putting them together. It is not by coincidence that so many child-development kinds of educational materials are based upon this activity of taking apart and putting together. This activity is very much based on what we know about what a child needs on an experimental level before the child can move to a symbolic level.

Development of a Child's Motor System

Because I have greatly emphasized the motor system, I think it is important to list some aspects about the development of the child's motor system. The first aspect of perceptual motor development has to do with laterality. At a reflexive level we see the emergence of the tonic neck reflex. Although this reflex disappears at about 12 weeks, it is the first sign at a reflexive level of the child's laterality. The very important steps that follow this are developmental milestones such as reaching to the sides of the body for an object, reaching across the midline for an object, and balancing with the arms in a protective fashion to keep the body from falling to one side. Laterality can be described as an internal awareness that there are two sides of the body, that they exist, and that they are different. Disorders or interruptions in the experiences of laterality very much affect the child's perceptual development. Certainly, if the child has not experienced his or her own sidedness, he or she cannot project that onto an object. What is the consequence? The consequence is that the child cannot perceive the sidedness of objects outside of the body.

Another aspect of perceptual motor development is directionality. This is an external awareness that objects outside of the body have sides too. It has to do with what the child can project of his/her knowledge of his/her own body, such as right-left, or the right-left-middle aspects of objects of patterns up or down. It has to do also with the knowledge of knowing space away from the body, toward the body, and behind the body. How many of the children you are now seeing have an idea of their bodies' limits in space or their bodies' positions in space? I think exercises focusing on the development of these perceptual motor skills are significant. These exercises must begin at an experiential sensory-motor level, before the concepts of body movement, body space, and body image are developed.

Conclusion

The specific functional areas of the brain must be programmed by sensory motor experience or preverbal experience before they are able to handle the more refined and sophisticated tasks that are involved in higher learning. We oftentimes go so rapidly through sensory motor activities with deaf-blind children that we do not give them sufficient exposure to the necessary experience that is demanded as an antecedent to further intellectual development.

Both gross and fine motor involvements in combination with other areas of sensory input are essential during the early learning period. Movement in all its aspects facilitates perceptual judgment. There have been some interesting studies concerning various discrimination types of tasks.

Apparently, without motor mediation, there is no increase in discrimination ability. With motor mediation there is a significant increase in discrimination scores. For example, the child is asked to look at a projected circle and square on a screen and then is asked to match a concrete circle and square in front of him or her with the two-dimensional objects projected on the screen. Without being able to trace in the air the circle and the square, the child's scores in perceptual discrimination will not improve; however, with the introduction of the motor system as a mediator or, as Dr. Ayres suggested, the vestibular and tactile system as the organizer of sensory input, the total sensory impressions of the object or experience will more likely be perceived with greater discrimination and, consequently, will have more usable, meaningful information for the child.

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